STIC-Biotech/ChemLib

Fr m: Sent: To:

Subject:

Scheiner, Laurie Friday, June 14, 2002 10:56 PM STIC-Biotech/ChemLib seq. search request (09/808,212)

Please search SEQ ID NO:1 of application S.N. 09/808,212. Thanks!

Laurie Scheiner Art Unit 1648 CM1 8E05 308-1122 8E12

Searcher: _	Sheppard
Phone:	
Location:	। ei. ਹ0ਨ-ਕ ਼199
Date Picked	Up:
Date Compl	eted: <u> </u>
Searcher Pr	ep/Review:
Clerical:	
Online time	

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

VENDOR/COST(where applic.)
STN:	· · · · ·
DIALOG:	
Questel/Orbit: _	
DRLink:	
Lexis/Nexis:	
Sequence Sys.:	
WWW/Internet:	
Other (specify):	



```
Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw model
                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                        a a
                                                                                                                       O
                                                                                                                                                                                  Ö
                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                  Score
                                                         55
                                                                                                             58
58
57
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length: 0 length: 20000000000
                                                                                                                                                                                  Match
                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         June 19, 2002, 16:25:56; Search time 1700.19 Seconds (without alignments) 1976.686 Million cell updates/sec
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13736207 seqs, 6748477542 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-808-212A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  atgaacattaaatttgctgg.....ttaaatttgctggaaaataa
                                                                                                                                                                                                                                                                                                                                  gb_est1:*
gb_est2:*
                                                                                                                                                                                                                                                                                                                                                                           em_estov:*
em_estpl:*
                                                                                                                                                                                                                                                                       em_gss_inv:*
em_gss_pln:*
em_gss_vrt:*
                                                                                                                                                                                                                                                                                                                                                                                                                   em_esthum:*
                                                                                                                                                                                                                                                                                                                                                                                                                             em_estba:*
                                                                                                                                                                                                                                                                                                                                                       em_htc:*
                                                                                                                                                                                                                                                                                                                                                                   em_estro:*
                                                                                                                                                                                                                                                                                                                                                                                                em_estmu:*
                                                                                                                                                                                                                                                                                                                                                                                                         em_estin:*
                                                                                                                                                                                                                                                                                                               gb_gss:*
                                                                                                                                                                                                                                                                                                     em_gss_hum: *
                                                                                                                                                                                                                                                                                                                           gb_htc:*
                                                                                                                                                                                 Length DB
                             Ħ
                                               BM163552
BM170799
BH264512
                                                                                       BM029212
BH040136
BM374465
BM164323
BM162473
                                                                                                                                                   AZ372526
AZ771492
                                                                                BM165811
                    BM441017
                                        AZ600777
AZ676392
                             AZ460541
           2919110
                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                 Description
                                                                                                                                          AZ771492
BM159325
                                                                                                                                                              AZ372526
                    BM44101
           91
                                                                                                                                        1M0124L21
2 1M0573L10
EST561848
 ENTHY 47TR
                                                 CH230-121
                                                                    EST566075
                                                                                        EST564996
                                                                                                  EST566846
                                                                                                            EBpi03_SQ
                                                                                                                      RPCI-24-2
                             1M0265I24
                                        1M0418D18
                                                           EST573322
                                                                                EST568334
                                                                                                                              IpSkn0005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   249
                                                                                                                                                                                         JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                RESULT 1
AZ372526
LOCUS
DEFINITION
                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                         FEATURES
                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    00000
                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                     ORGANISM
                                                source
```

45	44	43	42	41	40	39	38	37	36	35	34	ω G	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	
51	51	51	51	51	۳	۳	۳	51.4	۲.			-		۳	۲.	<u>, </u>	2	2		۶		53			ω	53.4		
٠	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	• •	٠	•	21.4	•	•	
333	331	330	327	326	581	382	861	485	563	476.	437	956	929	91,7	865	421	935	650	976	498	970	878	718	699	725	868	540	
10	10	10	10	9	12	12	12	10	12				12	12	12	12	10	12	12	9	12	12	12	12	12	12	12	٠
BG224555	BG225320	BE580447	BE580799	BE223521	CNS01UPZ	BH043453	AZ137643	BM161844	AZ026892	BE579798	BE030214	AZ167142	AZ688789	BH148214	AZ668061	364	BE897269	AZ722144 ·	AG136173	BE223146	BH137975	AZ673988	CNS04 PAC	CNS03C2I	вн180166	вн161951	AZ813205	
																												•
kp48a03	BG225320 kp67d09.y	kp77e07	9 kp81g04	BE223521 kp81g04.y	AL168128 Tetraodon	굕	AZ137643 SP_0176_B	BM161844 EST564367		8	14	42 SP_0094_	789	214	8061	113646 RPCI-2	97269 60143724	RPCI	ω	*		73988	AL301053 Tetraodon	7 Tetr	вн180166 016_I_02-	BH161951 ENTRB12TR	AZ813205 2M0080C24	

ALIGNMENTS

Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R. High quality sequence stop: 602 Location/Qualifiers Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error:
Plate: 0124 row: L column: 21
Seq primer: CGTTGTAAAACGACGGCCAGT
Class: plasmid ends Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus (bases 1 to 602) AZ372526 602 bp DNA linear GSS 0. 1M0124L21F Mouse 10kb plasmid UUGC1M library Mus musculus clone UUGC1M0124L21 F, DNA sequence. Tel: 801 585 5606 Fax: 801 585 7177 University of Utah University of Utah Contact: Robert B Unpublished (2000) Mus musculus AZ372526 ₽ R R plasmid inserts house mouse. AZ372526.1 308, USA Biomedical /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="UUGCIM0124L21"
/clone_lib="Mouse 10kb plasmid UUGCIM library" .602 GI:10486226 Genome Center Weiss Polymers Research Bldg., Std Error: 0.00 20 ŝ 2030 GSS 02-OCT-2000 usculus genomic ₽., SLC, Ţ

```
RESULT
AZ771492
LOCUS
                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360 GAAGCAGAAGCAGAAGCAGAAGCAAAACAAGGACCTGAAGGATGCTTGAATTTCACT 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300 GAAGAAGAAGAAGAAGAAGAAGAAGAAGAAACAGAAGCAGAAGCAGAAGCAGAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 ggaacatttgaagaagcaacagcagaágcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Sinhes 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGACA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggaaaa 246
University of Utah Genome Center University of Utah
                                                                       Unpublished (2000)
Contact: Robert B.
                                                                                                                                                                                                                                         Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Du Islam, H., Longacre, S., Mahmoud, M., Meenen, E., M., Rose, M., Rose, R., Stokes, R., Tingey, A.,
                                                                                                                                                   plasmid inserts
                                                                                                                                                                                 Mouse whole genome
                                                                                                                                                                                                                       and Wright, D., Weiss, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Linear GSS 16-FEB-200 clone UUGCLM0573L10 R, DNA sequence.
AZ771492
                                                                                                                                                                                                                                                                                                                                                              Mammalia; Eutheria;
1 (bases 1 to 518)
                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AZ771492.1 GI:12893811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nouse mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and selected for ampicillin resistance."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     purified. The sheared, adaptored vector DNA, a chemically-competent E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pND42 (gil4732114) dplAF129072.1), a copy number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified the characteristics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polymerase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polynucleotide kinase. Adaptor oligonucleotides were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           musculus C57BL/6J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (http://www.jax.org/resources/documents/dnares/). The DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /lab_host="E. Coli strain xL10-Gold, T1-resistant,
/note="Vector: PWD42nv; Purified genomic DNA from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  igated to the blunt ends in high
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hydrodynamically sheared by repeated
                                                                                                                                                          scaffolding with paired end reads from 10kb
                                                                           Weiss
                                                                                                                                                                                                                                                                                                                                                                                                Rođentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The sheared, adaptored mouse DNA was vector DNA, and transformed into y-competent E. coli XL10-Gold (Stratage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 62; DB 1
Pred. No. 0.11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Ver
Sciurognathi;
                                                                                                                                                                                                                                                                        Beacorn, T., Duval, B., Hamil, C., M., Meenen, E., Pedersen, T., Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB.12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Purified genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115;
                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                             Muridae;
                                                                                                                                                                                                                                         von Niederhausern, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GSS 16-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                     Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             annealed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   359
```

оу 9

Вb

В

Qy

밁 δÃ В δÃ

SOURCE

밁 Qy

ORGANISM

Ϋ́

Ъ ρ 뮹 QΥ

В

COMMENT

TITLE

,Db

γ

```
SOURCE
                                                               VERSION
                                                                                     ACCESSION
                                                                                                                      DEFINITION
                                                                                                                                                             BM159325
                                                                                                                                                                                   RESULT
                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 109
                                                                                                                                                                                                                                                              199 gacttagaagatg 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                      466 GAAGAAGAAGAAG 478
                                                                                                                                                                                                                                                                                                                     406
                                                                                                                                                                                                                                                                                                                                    139 acagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagca
                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ttaatetttgeagatggaaagataeaaacagcagaattcaaaggaacatttgaagaagca 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109;
Plasmodium yoelii yoelii
Plasmodium yoelii yoelii
                                                             BM159325.1
                                                                                         mRNA sequence.
                                                                                                                  EST561848 PyBS Plasmodium
                                                                                                                                          BM159325
                                                                                   BM159325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          High quality sequence stop: 518.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plate: 0573 row: L column: 10
Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Class: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: ddunn@genetics.utah.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Insert Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308, B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chemically-competent E. coli XIIO-Gold (Stratagene) cells and selected for ampicillin resistance."

91 c 148 g 61 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 adaptored vector DNA, and transformed into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of pWD42 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was possess.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi|4732114|gb|AF129072.1), a copy-number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biomedical Polymers Research Bldg., 20 S. 2030 E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Vector: PWD42nv; Purified genormusculus C57BL/6J (male) was obtained
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /lab_host="E. Coli strain XL10-Gold, T1-resistant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="Mouse 10kb plasmid UUGC1M library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="UUGC1M0573L10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'sex≖"Male"
                                                           GI:17305009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hydrodynamically sheared by repeated 55 inch orifice at constant velocity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : 10000 St. Column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 58.6; DB Pred. No. 0.41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Std Error: 0.
Dlumn: 10
                                                                                                                                    318 bp
                                                                                                              318 bp mRNA linear
yoelii yoelii cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Purified genomic DNA from M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from the Jackson
                                                                                                            EST 04-DEC-2001
PYCJC62 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                198
                                                                                                                                                                                                                                                                                                                                                                                       405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T
```

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                       B
                                                                                                                                                                                                                          δõ
                                                                                                                     밁
                                                                                                                                                 ρy
                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                DEFINITION
                                               BM029212
                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                           163
                                                                                                                                                                                                                                                                 103
                                                                                                                                                        188
                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                     43
                                                                                                                                                                                                                                                                                                  71
                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                         ttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcg 187
                                                                                                                                                                                                                                                             AAGAAACAAAAGAAGAAGAAGTTAAAGAAGAAACAAAAGAAGAAACAAAAGAAGAAG
                                                                                                                                                                                                                                                                                              aagttaacttaatctttgcagatggaaagatacaaac---agcagaattcaaaggaacat 127
                                                                                                                   AAGCAAAAGAAGCTGCAGAAGAAGCTGCAAACGAAGCTGTAAACGAAGCTGCAGAAGAA
                                                                                                                                                                                                                                                                                                                                   133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM029212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carlton, J
sequence
              IpSkn00051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                For clone info, please contact the Malaria Research and Reference Reagent Resource Center, ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Plasmodium yoelii EST project at TIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fraser, C.M. and Carucci, D.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Alveolata; Apicomplexa; Haemosporida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             primer:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301-530-9319
                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carlton@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            After packaging, texcised from the H isolated."

a 30 c 76 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               with XhOI and separated on a Sephacryl S-500 column. Size-fractionated cDNA was precipitated and ligated to HybriZAP arms directionally using EcoRI-XhOI Cleaved arms. After packaging, the phagemid vector (pAD-GAL4) was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         collected from BALB/cByJ mice infected with Py17XL parasites, and leukocytes removed by passage over microcrystalline cellulose collumns. Total RNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  termini were treated with Pfu DNA polymerase and EcoRI adaptors ligated to the blunt ends. The sample was cleaved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     primer and reverse transcriptase in the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA isolated using oligo(dT)-cellulose chromatography First strand cDNA synthesis was completed using a 50-bi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5-methyl dCTP. After second strand synthesis, uneven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .M., Daly, T.M., Long, C.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            solated using the guanidinium isothiocyanate method,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="Vector: pAD-GAL4; At 20-25% parasitemia, blood was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          db_xref="taxon:73239"/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           strain="17XL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Plasmodium yoelii"
            Skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to 318
                                                                                                                                                                                                                                                                                                                                                                                                                       23.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _stage="Asexual blood stages"
_host="E. coli XL-1 Blue"
            475 bp mRNA cDNA library Ictalurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               from the HybrizAP vector and plasmid DNA
                                                                                                                                                                                                                                                                                                                                                                                                       Score 58.2; DB 10;
Pred. No. 0.52;
0; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26
                                 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bergman, L.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           yoelii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MD 20850,
            punctatus (
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 318;
                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
            r EST 05-NOV-2001
CDNA 5', mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plasmodium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vaidya, A.B.,
                                                                                                                     281
                                                                                                                                                    246
                                                                                                                                                                                       222
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                       ₽
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                   밁
                                          REFERENCE
                                                                                               SOURCE
                                                                                                           KEYWORDS
                                                                                                                       VERSION
                                                                                                                                      ACCESSION
                                                                                                                                                            DEFINITION
                                                                                                                                                                            Locus
                                                                                                                                                                                        вн040136/с
                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                   163
                                                                                                                                                                                                                                                                                                                             139
                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                           43
                                                                                                                                                                                                                                              GAAGAAGCAGAAGAAGCAGA 242
                                                                                                                                                                                                                                                                                                   acagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagca 198
                                                                                                                                                                                                                                                                                                                                                                     ttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagca 138
                                                                                                                                                                                                                                                                                                                                                                                                           gacttagaagatggtggaaa 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhao,S., Nierman,W., Malek,J., Shatsman,S., Al Tsegaye,G., Geer,K., Krol,M., Shvartsbeyn,A., Russell,D., de Jong,P. and Fraser,C.M.
                                                                                                                                                              BH040136
RPCI-24-255A23.TV RPCI-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tel: 334 844 4054 Fax: 334 844 9208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The Fish Molecular Genetics
Department of Fisheries and
and Molecular Biosciences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM029212
BM029212.1
                                                                 Eukaryota; Metazoa;
                                                                                 Mus musculus
                                                                                                                       BH040136.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           203 Swingle Hall,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Auburn University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNAs in the skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Transcriptome analysis of channel catfish
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mickett, K.D. and Liu, Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        channel catfish
                                                     Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seq primer: M13 Reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: zliu@acesag.auburn.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Initial analysis of
                                                                                               nouse mouse
                                                                                                                                                DNA sequence
                                        (bases 1 to 691)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              229
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Ictalurus punctatus'
/db_xref="taxon:7998"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="Skin cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Organ: Skin; Vector: pSport1; Site_1: NotI; Site_2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                       GI:14818806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:16742782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Icta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Auburn University,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li, P., Ju, Z.,
                                                     Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sis of channel catfish (Ictalurus punctatus):
gene expression and microsatellite-containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 57.6; DB Pred. No. 0.62; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          154 g
                                                                                                                                                                          691 bp
                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and Biotechnology Laboratory, Allied Aquacultures and Program
                                                     Craniata; Veri
Sciurognathi;
                                                                                                                                                            musculus genomic clone
               Shatsman,S., Akinret,B., Lev
Shvartsbeyn,A., Gebregeorgis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kocabas, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15
                                                                                                                                                                            ÒNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Auburn, AL 36849, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                     Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Feng, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         475;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patterson, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Siluriformes;
                Levins,M.
gis,E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                       162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of Cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                    RESULT
BM374465
LOCUS
                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                   δÃ
                                                                                                                                                                                                                                                                                                                                  Вþ
                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                         Вb
                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                           Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                            KEYWORDS
                                                                                                                                           VERSION
                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                           332
                                                                                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                181 aatggcgaatatacagcagacttagaagatg
                                                                                                                                                                                                                                                                                                                                                   121 ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                                                                                                                                                         452
                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGAAGAAGAAGAAGAAGAAGAACAAG
                                                                                                                                                                                                                                                                                                                                                                                  gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115;
                                                                                                                                                                 BM374465
EBp103_SQ003_L06_R IGF
Clone EBp103_SQ003_L06
1 (bases 1 to 443)
Hedley,P., Liu,H., Caldwell,D., McCallum,N., Mudie,S.,
Ramsay,L., Machray,G., Marshall,D.F.M. and Waugh,R.
                                                                                                                            EST
                                                             Spermatophyta; Magnoliophyta;
                                                                                                             partey.
                                                                                                                                          BM374465.1
                                                                                                                                                         BM374465
                                                                              Eukaryota;
                                                                                            Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seq primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 page: http://ww
Plate: 255 row;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Resources (http://www.chori.org/bacpac/orderingframe.htm).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: szhao@tigr.org
Clones are derived from the mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Other_GSSs: RPCI-24-255A23.TJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  library availability, please contact Pieter de Jong (pdejong@mail.cho.org). Clones may be purchased from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Shaying 
Department of Euk
                                                  Triticeae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Institute for Genomic Research
Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 838 0200
301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Vector: pTARBAC1; Site_1: BamH1; Site_2: BamH1; RPCI-24 Mouse BAC Library produced by Pieter de Jong. The library was cloned in the pTARBAC1 cloning vector_at the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BamH1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:10090"
/clone="RPCI-24-255A23"
/clone_lib="RPCI-24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /cell_type="Spleen/Brain"
/note="Vector: pTARBAC1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /sex="Male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      End
                                                                              Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 691
                                                                                                                                       GI:18117855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               row: A column:
                                                 Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23.1%;
54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryotic Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequences from Library RPCI-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sites using MboI partially digested male C57BL/6J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .tigr.org/tdb/bac_ends/mouse/bac_end_intro.html A column: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 57.4;
Pred. No. 0.
                                                                                                                                                                 443 bp mRNA linear EBarley EBpi03 library Hordeum 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                           Streptophyta; E
yta; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                                                                                                                                  211
                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAC library RPCI-24. For BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12;
                                                          Embryophyta;
a; Poales; Poa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20850,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 691;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
                                                           Poaceae;
                                                                                                                                                                                            EST 10-JAN-2002
                                                                        Tracheophyta;
                                                                                                                                                                             vulgare cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BACPAC
                Cardle, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps.
                                                           Pooideae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
```

```
KEYWORDS
SOURCE
                                                 COMMENT
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                    Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                δã
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                         REFERENCE
                                                                                                                                                                                                VERSION
                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                     BM164323
                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                          Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                              TITLE
                                                                                                                                                   ORGANISM
                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                              186
                                                                                                                                                                                                                                                                                                                                                           192
                                                                                                                                                                                                                                                                                                                                                                                                                   132
                                                                                                                                                                                                                                                                                                                                                                                         126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
ნ
                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAAGAAGAAGAAGAAGAAGAAGAAGAAAAAAGAAAAAGAATAAGAATAAGGATAA 243
                                                                                                                                                                                                                                                                                                                                          tacagcagacttagaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 agaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaata 191
                                                                                                                                                                                                                                                                                                                                                                                                                                        agttaacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttga 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125;
             Parasite Genomics Group
The Institute for Genomic Research
                                                        Plasmodium yoelii EST project Unpublished (2001)
                                                                                                                         Plasmodium yoelii yoelii
Eukaryota; Alveelata; Apicomplexa; Haemosporida;
                                            Contact: Jane Carlton
                                                                                      Carlton, J.M., Daly, T.M., Long, C.A., Fraser, C.M. and Carucci, D.J.
                                                                                                                                                                                                            mRNA sequence
BM164323
                                                                                                                                                                                                                                     EST566846 PyBS Plasmodium
                                                                                                                                                                Plasmodium yoelii yoelii.
                                                                                                                                                                                              BM164323.1
                                                                                                                                                                                                                                                      BM164323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tel:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Waugh Runit of Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seq primer: M13 reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: rwaugh@scri.sari.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fax:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scottish Crop Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Development of Barley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Invergowrie,
                                                                                                                      (bases 1 to 379)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence has a Phred quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rgowrie, Dundee, D
00 44 1382 562731
00 44 1382 562426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Derived from pistils dissected from developing grains (4 days post anthesis) in glasshouse grown barley plants. Developed as part of the barley transcriptome resources c BBSRC/SEBRAD funded cereal IGF (Investigating Generunction) project."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: psporT1; Site_1: Sal I; Site_2: Not I;
Non-normalised library, directionally cloned into psporT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="EBpi03_SQ003_L06"
/clone_lib="IGF Barley EBpi03 library"
/tissue_type="Pistils"
/dev_stage="4 days post anthesis"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cultivar="Optic"
/db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Hordeum vulgare"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jocation/Qualifiers
                                                                                                                                                                                             GI:17310004
   Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DD2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 57.2; DB 10; Pred. No. 0.74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transcriptome Resources
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Institute
D2 5DA, Scotland,
                                                                                                                                                                                                                                                      379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                     379 bp
yoelii
Rockville,
                                                                        at
                                                                                                                                                                                                                                   mRNA linear
yoelii cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 score
                                                                                                     Bergman, L.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113;
 ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          덪
 20850,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                 Plasmodium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               over
                                                                                                  Vaidya, A.B.,
                                                                                                                                                                                                                                     EST 04-DEC-2001
PYCLS62 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71
```

```
BM162473
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                   REFERENCE
                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                        KEYWORDS
                                                                                                                                                                                 VERSION
                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                              201 cttag 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           aatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaac 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAG 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAGAAGAAACAAAAGAAGAAGAAGAAGTTAAAGAAGAAACAAAAGAAGAAACAAAAGA 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAAGAAGCAAAAGAAGCTGCAGAAGAAGCTGCAAATGAAGCTGTAAACGAAGCTGCAGA 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagcaga 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105;
                                          1 (bases 1 to 380)
Carlton, J.M., Daly, T.M., Long, C.A.,
                                                                                                                                                            EST
                                                                                                                                                                                                                                            EST564996 PyBS Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seq primer: ADF
Plasmodium
                                                                                                           Plasmodium yoelii
                                                                                                                                                                               BM162473.1 GI:17308154
                                                                                                                                                                                                    BM162473
                                                                                                                                                                                                                    mRNA sequence.
                                                                                                                                                                                                                                                                      BM162473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              For clone info, please contact the Malaria Research and Reagent Resource Center, ATCC
                         Fraser, C.M. and Carucci, D.J
                                                                                    Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                     Plasmodium yoélii yoelii.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301-530-9319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        carlton@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      isolated."
37 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primer and reverse transcriptase in the presence of 5-methyl dCTP. After second strand synthesis, uneven termini were treated with Pfu DNA polymerase and EcoRI adaptors ligated to the blunt ends. The sample was cleaved with XhoI and separated on a Sephacryl S-500 column.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /lab_host="E. coli XL-1 Blue"
/note="Vector: pAD-GAL4; At 20-25% parasitemia, blood was collected from BALB/cByJ mice infected with Py17XL parasites, and leukocytes removed by passage over microcrystalline cellulose collumns. Total RNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Size-fractionated cDNA was precipitated and ligated to HybriZAP arms directionally using Econ-Xhor cleaved arms. After packaging, the phagemid vector (pAD-GAL4) was excised from the HybriZAP vector and plasmid DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                First strand cDNA synthesis was completed using a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     isolated using the guanidinium isothiocyanate method, a mRNA isolated using oligo(dT)-cellulose chromatography.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        db_xref="taxon:73239"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Plasmodium yoelii yoelii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             strain="17xL"
  yoelii EST project at TIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stage="Asexual blood stages"
                                                                                                           yoelii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 57; DB 10; Pred. No. 0.82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                      380 bp
                                                                                                                                                                                                                                            380 bp mRNA linear EST 04-DEC-2001 yoelii yoelii cDNA clone PYCKT03 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57 t
                                            Bergman, L.W., Vaidya, A.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 379;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    50-base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
```

밁 Ş 멍 20 В Ş 멍 δÃ

```
BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                  В
                                     KEYWORDS
                                                      VERSION
                                                                          ACCESSION
                                                                                                           DEFINITION
                                                                                                                               Locus
                                                                                                                                                     BM165811
                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                  173
                                                                                                                                                                                                                                                                                                                                                                           185 gcgaatatacagcagacttag 205
                                                                                                                                                                                                                                                                                                                                   125 catttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatg 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                     65 caatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaa 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAAGAAGCTGCAGAAGAAGCTGCAAACGAAGCTGTAAACGAAGCTGCAGAAGAAGTTG 232
                                                                                                                                                                                                                           CAGAAGAAGCTGCAAATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111;
Plasmodium yoelii yoelii
Plasmodium yoelii yoelii
                                   BM165811.1
EST.
                                                                                                         BM165811 5
EST568334 PyBS Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            For clone info, please contact the Malaria Research and Reference Reagent Resource Center, ATCC http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9712 Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Parasite Genomics Group
The Institute for Genomic Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2001)
                                                                          BM165811
                                                                                      mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Jane Carlton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              primer: ADF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301-530-9319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       carlton@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 with XhoI and separated on a Sephacryl S-500 column. Size-fractionated cDNA was precipitated and ligated to HybriZAP arms directionally using EcoRI-XhoI cleaved arms. After packaging, the phagemid vector (pAD-GAL4) was excised from the HybriZAP vector and plasmid DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5-methyl dCTP. After second strand synthesis, uneven termini were treated with Pfu DNA polymerase and EcoRI adaptors ligated to the blunt ends. The sample was cleaved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  First strand cDNA synthesis was completed using a 50-base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA isolated using oligo(dT)-cellulose chromatography
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         microcrystalline cellulose collumns. Total RNA was isolated using the guanidinium isothiocyanate method,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                collected from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                isolated."
38 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            parasites, and leukocytes removed by passage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /lab_host="E. coli XL-1 Blue"
/note="Vector: pAD-GAL4; At 20-25% parasitemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /dev_stage="Asexual blood stages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="PYCKT03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:73239"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /strain="17XL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Plasmodium yoelii yoelii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ocation/Qualifiers
                                                      GI:17299043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22.9%;
                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reverse transcriptase in the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 57; I
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BALB/cByJ mice infected with Py17XL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                           yoelii yoelii cDNA clone PYCMT47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MD 20850,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                             EST 04-DEC-2001
YCMT47 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      blood was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                             Qy
                                                         RESULT 10
BM163552
                                                                                                                                                                                                                             Вb
                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                             DЬ
                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                     .185 gcgaatatacagcagacttag 205
                                                                                                                                           433 CAGAAGAAGCTGCAAATGAAG
                                                                                                                                                                                                                             373 CAAAAGAAGCTGCAGAAGAAGCTGCAAACGAAGCTGTAAACGAAGCTGCAGAAGAAGTTG
                                                                                                                                                                                                                                                                 125 catttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatg
                                                                                                                                                                                                                                                                                                                                                                                         253 AAACAAAAGAAGAAGAAGTTAAAGAAGAAACAAAAGAAGAAACAAAAGAAGAAGTTA 312
                                                                                                                                                                                                                                                                                                            65 caatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaa 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 55.1 tosal Similarity 55.1
                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence
                   BM163552 608 bp mRNA linear EST 04-
EST566075 PyBS Plasmodium yoelii yoelii cDNA clone PYCLG59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carlton, J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  For clone info, please contact the Malaria Research and Reference Reagent Resource Center, ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9712 Medical Center Drive, Rockville, MD 20850,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Parasite Genomics Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Jane Carlton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plasmodium yoelii EST project at TIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fraser, C.M. and Carucci, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           primer: ADF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Institute for Genomic Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         carlton@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 adaptors ligated to the blunt ends. The sample was cleawith XhoI and separated on a Sephacryl S-500 column. Size-fractionated CDNA was precipitated and ligated to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Vector: pAD-GAL4; At 20-25% parasitemia, blood was collected from BALB/cByJ mice infected with Py17XL parasites, and leukocytes removed by passage over
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            excised from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           After packaging, the phagemid vector (pAD-GAL4) was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  termini were treated with Pfu DNA polymerase and EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        primer and reverse transcriptase in the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HybriZAP arms directionally
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isolated using the guanidinium isothlocyanate method, and isolated using oligo(dT)-cellulose chromatography
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          microcrystalline cellulose collumns.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Plasmodium yoelii yoelii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'Clone="PYCMT47"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'db_xref="taxon:73239"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          strain="17XL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     dev_stage="Asexual blood stages"
lab_host="E. coli XL-1 Blue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -methyl dCTP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to 559)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.9%;
55.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Daly, T.M., Long, C.A., Bergman, L.W., Vaidya, A.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     58
C
                                                                                                                                               453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 117 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 57;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the HybriZAP vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       After second
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10; Length 559;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  using EcoRI-XhoI cleaved arms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       strand synthesis, uneven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and plasmid DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sample was cleaved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNA was
                     PYCLG59 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                            372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                   BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 For clone info, please contact the Malaria Research and Reference Reagent Resource Center, \mathtt{ATCC}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9712 Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Parasite Genomics Group
The Institute for Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Jane Carlton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plasmodium yoelii EST project at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fraser, C.M. and Carucci, D.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Carlton, J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM163552
BM163552.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases
                      304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301-530-9319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   carlton@tigr.org
                   isolated."
a 61 c
                                                                                                             adaptors ligated to the blunt ends. The sample was cleaved with XhoI and separated on a Sephacryl S-500 column. Size-fractionated cDNA was precipitated and ligated to HybriZAP arms directionally using EcoRI-XhoI cleaved arms.
                                                                                                                                                                                                                                                                                                         mRNA isolated using oligo(dT)-cellulose chromatography
                                                                                                                                                                                                                                                                                                                                                           microcrystalline cellulose collumns.
                                                                                                                                                                                                                                                                                                                                                                            /lab.host""E. coli XL-1 Blue"
/note="Vector: pAD-GAL4; At 20-25% parasitemia, blood was collected from BALB/CByJ mice infected with Py17XL parasites, and leukocytes removed by passage over
                                                                     excised
                                                                                       After packaging,
                                                                                                                                                                                                               5-methyl dCTP. After second strand synthesis, uneven termini were treated with Pfu DNA polymerase and EcoRI
                                                                                                                                                                                                                                                                                  First strand cDNA synthesis was completed using a 50-base
                                                                                                                                                                                                                                                              primer and reverse transcriptase in the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Plasmodium
/strain="17XL"
                                                                                                                                                                                                                                                                                                                                  isolated using the guanidinium isothiocyanate method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dev_stage="Asexual blood stages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:73239"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 to 608)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:17309233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Daly, T.M., Long, C.A., Bergman, L.W., Vaidya, A.B.
                                                                from the HybriZAP vector and plasmid DNA
                      111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Research
                                                                                            the phagemid vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              yoelii yoelii"
                      132 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MD 20850, USA
                                                                                              (pAD-GAL4) was
                                                                                                                                                                                                                                                                                                                                                             Total RNA was
```

Qy Db Qy Db δÃ 밁 DЬ QY Matches 111; Query Match 239 CAGAAGAAGCTGCAAATGAAG 28 179 CAAAAGAAGCTGCAGAAGAAGCTGCAAACGAAGCTGTAAACGAAGCTGCAGAAGAAGTTG 238 125 59 Local Similarity 65 caatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaa 124 gcgaatatacagcagacttag 205 catttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatg 184 AAACAAAAGAAGAAGAAGAAGTTAAAGAAGAAACAAAAGAAACAAAAGAAGAAGTTA 118 Conservative 22.9%; 259 Score 57; Pred. No. Mismatches DB 10; 0.76; 90; Length 608; Indels Gaps

```
RESULT 1
BM170799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
  밁
                                 Qy
                                                                          В
                                                                                                                  Ş
                                                                                                                                                          밁
                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                 BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                     135 agcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatac 194
                                                                                                                                                                                                                                             hes 123;
354 TGAACAAGTAGAAGAAAAAAGAAATTGAACAACCTGAACAAGTAGAGGTAGAACATGT 413
                                                                                  294
                                                                                                                                                            234 TGACGAAGAAGAATCAGATGAAGAAGAAGAATCAACTGAAGAAAAAGAAATTGAACAACT 293
                                                                                                                        75
                                                                                                                                                                                                      15
                                                                                                       EST573322 PyBS Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carlton,J.M., Daly,T.M., Long,C.A., Bergman,L.W., Vaidya,A.B., Fraser,C.M. and Carucci,D.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA sequence
BM170799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BM170799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seq primer: ADF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         http://www.malaria.mr4.org/mr4pages/index.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               For clone info, please contact the Malaria Research Reagent Resource Center, ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Parasite Genomics Group
The Institute for Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmodium yoelii EST project at TIGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM170799.1 GI:17304031
                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mail: carlton@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 715)
                                                                                                                                                                                                                                                                                                                                                                 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301-838-0208
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301-530-9319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5-methyl dCTP. After second strand synthesis, uneven termini were treated with Pfu DNA polymerase and EcoRI adaptors ligated to the blunt ends. The sample was cle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jane Carlton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /lab_host="E. coli XL-1 Blue"
/note="Vector: pAD-GAL4; At 20-25% parasitemia, blood was collected from BALB/cByJ mice infected with Py17XL parasites, and leukocytes removed by passage over
                                                                                                                                                                                                                                                                                                                                                                                      isolated."
                                                                                                                                                                                                                                                                                                                                                                                                     After packaging, the phagemid vector (pAD-GAL4) excised from the HybrizAP vector and plasmid DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                           Size-fractionated cDNA was precipitated and ligated to HybriZAP arms directionally using EcoRI-XhoI cleaved arms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       with XhoI and separated on a Sephacryl S-500 column.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer and reverse transcriptase in the presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         First strand cDNA synthesis was completed using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        microcrystalline cellulose collumns.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             solated using the guanidinium isothiocyanate method,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone_lib="PyBS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:73239"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'organism="Plasmodium yoelii yoelii"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       yoelii yoelii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _stage="Asexual blood stages"
                                                                                                                                                                                                                                                             22.4%;
                                                                                                                                                                                                                                                                                                                                                                 86 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         isolated using oligo(dT)-cellulose chromatography. strand cDNA synthesis was completed using a 50-base
                                                                                                                                                                                                                                                             Score 55.8; D. Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                 173 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       715 bp
                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715 bp mRNA linear EST 04-DEC-2001
Yoelii yoelii cDNA clone PYCQL33 5' end,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rockville, MD 20850, USA
                                                                                                                                                                                                                                                                                                                                                                 116 t
                                                                                                                                                                                                                                                                                 DB 10;
                                                                                                                                                                                                                                             112;
                                                                                                                                                                                                                                                                              Length 715;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sample was cleaved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total RNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Reference
                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                          was
                                                                                                                                                                                                                                      Gaps
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ωy
В
                          Qy
                                                                                                                                 рь
                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       вн264512/с
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         เอดเร
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195 agcagacttagaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                 63
                                                                                                                                                                acatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaaa 182
                                                                                   tacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaagg 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAAGAAGTAGAATCTGTTGAACAACCTGAACAAATAGAAGTTGTTGGAGAACAA 468
(http://www.chori.org/bacpac/rat230.htm). For availability, please contact Pieter de Jong (] Clones may be purchased from BACPAC Resources
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9712 Medical Center Dr.,
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1999)
Other_GSSs: CH230-121K14.TJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Norway rat.
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CH230-121K14 TV CHORI-230 Segment 1 Rattus norvegicus genomic clone CH230-121K14, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (http://www.chori.org/bacpac/or ering_information.htm). BAC end
page: http://www.tigr.org/tdb/bac_ends/rat/bac_end_intro.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clones are derived from the rat BAC library CHORI-230 (http://www.chori.org/bacpac/rat230.htm). For BAC library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jong, P. and rraser, C.M.
Rat BAC End Sequences from Library CHORI-230 EcoRI segment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zhao, S., Shetty, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BH264512.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BH264512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: szhao@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Department of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Shaying Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 550)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         primer: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Institute for Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gebregeorgis,E., (P. and Fraser,C.M
                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                  /note="vector: pTARBAC2.1; Site_1: EcoRI; Site_2: EcoRI; CHORI: 230 Rat (BN/SSNHSd/MCW) BAC library produced by Pieter de Jong" 48 g 292 t
                                                                                                                                                                                                                                                                                                                                                                                                                    /db_xref="taxon:10116"
/clone="CH230-121K14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Rattus norvegicus"
/strain="BN/SsNHsd/MCW"
                                                                                                                                                                                                                                                                                                                                                                      /cell_
                                                                                                                                                                                                                                                                                                                                                                                  /sex="Female"
                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib-"CHORI-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                 22.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryotic Genomics
                                                                                                                                                                                                                                                                                                                                                                 type="Brain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shatsman,S., Tsegaye,G., (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          column:
                                                                                                                                                                                                                 Score 55; DB 12; Pred. No. 1.7;
                                                                                                                                                                                                                                                                                                48 g
                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      550 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                    Segment 1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         de Jong (pdejong@mail.cho.org).
                                                                                                                                                                                                  100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20850, USA
                                                                                                                                                                                                                                   Length 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Geer, K., Shvartsbeyn, Chen, D., Riggs, F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSS 30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Murinae;
                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Riggs, F.,
                                                                                                                                                                                                Gaps
                                                                391
                                                                                                                                                                                                  0;
```

ρ

183

tggcgaatatacagcagacttagaagatggtggaa

```
RESULT 13
AZ600777/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Locus
                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (EYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                  Query Match
Best Local
Matches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           330 AGAACAAGAAGAAGAAGAAGAAGAAGAAGAA 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AZ500777

546 bp DNA linear GSS 13-DEC-200 1M0418D18R Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0418D18 R, DNA sequence. AZ500777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse whole genome scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AZ600777.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: ddunn@genétics.utah.edu
Insert Length: 10000 Std Error: 0.
Plate: 0418 row: D column: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    University of Utah
University of Utah
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ,M., Rose,M., Rose,R., and Wright,D.,Weiss,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dunn, D., Aoyagi, A., Barber, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia; Eutheria;
1 (bases 1 to 546)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Islam, H., Longacre, S., Mahmoud, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .ass: plasmid ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     308,
Conservative
                                                                                                                 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Biomedical Polymers Research Bldg.,
                                                                                                               adaptored vector DNA, and transformed i chemically-competent E. coli XL10-Gold and selected for ampicillin resistance, 130 c 59 g 285 t
                                                                                                                                                                                                          adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gil4732114)gbln8F129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and
                                                                                                                                                                                                                                                                                                                           was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /lab_host="E. Coli strain XI.10-Gold, T1-resistant, F-"/note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
                                                                                                                                                                                                                                                                                                                                                                                                                            (http://www.jax.org/resources/documents/dnares/).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                               Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Mouse 10kb plasmid UUGC1M library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:11722967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                one="UUGC1M0418D18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                      hydrodynamically sheared by repeated passage through a 5 inch orifice at constant velocity. The sheared DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rose, R., Stokes, R.,
                    21.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Weiss
                                                                                                                                                                      The sheared, adaptored mouse DNA was vector DNA, and transformed into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rodentia;
    0;
                    Score 54.4; DB 12; Pred. No. 2.2;
      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beacorn, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tingey, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Meenen, E., Pedersen, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .00
        101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Duval, B.,
                                      Length 546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Muridae;
        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 S. 2030 E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               von Niederhausern, A.
                                                                                                                                             (Stratagene) cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSS 13-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hamil, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Murinae;
        0;
        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reilly
                                                                                                                                                                                                                                                                                                                                                                                                                                 The DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ţυ
        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
```

```
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AZ460541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGAAGAAGAAGAAGAAAATAAACAAACTTAA 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gacttagaagatggtggaaaccatatgaacattaaa 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagca 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AZ460541 596 bp DNA linear GSS 04
1M0265124R Mouse 10kb plasmid UUGClM library Mus musculús
clone UUGClM0265124 R, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: ddunn@genetics.utah.
Insert Length: 10000 Std
Plate: 0265 row: I column
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     University of Utah University of Utah Rm. 308, Biomedical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      plasmid inserts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse whole genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and Wright, D., Weiss, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Dunnslam, H., Longacre, S., Mahmoud, M., Meenen E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AZ460541.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A2460541
                                                                                                                                                                                                                                                                                                                                                                                                                                              High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tel: 801 585 5606
Fax: 801 585 7177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plate: 0265 row: I column: 24
Seq primer: CACACAGGAAACAGCTATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ummalia; Eutheria; (bases 1 to 596)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     n,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly
Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   plasmid ends
adaptored DNA was purified and size-selected for a 9.5 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivat of pwD42 (gi14732114|gb|AF129072.1), a copy-number
                                                                                                                                (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through 0.005 inch orifice at constant velocity. The sheared DNA was blunt end repaired with T4 DNA polymerase and T4
                                                                                                                                                                                                                                 musculus C57BL/6J (male) was obtained
                                                                                                                 polynucleotide kinase. Adaptor oligonucleotides were
                                                                                                                                                                                                           Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                            /clone_lib="Mouse 10kb plasmid UUGC1M library"
                                                                                                                                                                                                                                                                                                                                 /clone="UUGC1M0265I24"
                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                     note="Vector:
                                                                                                                                                                                                                                                                                            /sex="Male"
                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:10090"
                                                                                                                                                                                                                                                   lab_host="E. Coli strain XL10-Gold, T1-resis note="Vector: PWD42nv; Purified genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:10618666
                                                                                                                                                                                                                                                                                                                                                                                                              . 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Weiss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         scaffolding with paired end reads from 10kb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barber, M., Beacorn, T., Duval, B., Hamil, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polymers Research Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Std Error:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                            T1-resistant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S. 2030 E.,
                                                                                                                                                                                                                                       from the Jackson
                      ed from a derivative copy-number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murinae; Mus
                                                                                                                                                                                                                                                           from M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      485
                                                                                                                                                                                                                                                                              F) - "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLC,
                                                                                 ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TP CT
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM441017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gacttagaagatggtggaaa 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagca 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGAAGAAGAAGAAGA · 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EBed02_SQ002_C23_R IGF Barley EBed02 libiclone EBed02_SQ002_C23 5', mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hedley,P., Liu,H., Caldwell,D., McCallum,N., Ramsay,L., Machray,G., Marshall,D.F.M. and Wa Development of Barley Transcriptome Resources
                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (2001)
Contact: Waugh R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BM441017.1 GI:18471792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BM441017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM441017
                                                                                                                                                                                                                                                                                                                                                                                         Scottish Crop Research
                                                                                                                                                                                                                                                                                                                                                                                                                Unit of Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oarley.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                            Invergowrie,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 481)
                                                                                                                                                                                                                                                                                  primer: M13 reverse
                                                                                                                                                                                                                                                                                                     sequence
                                                                                                                                                                                                                                                                                                                                      rgowrie, Dundee, D
00 44 1382 562731
00 44 1382 562426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                        rwaugh@scri.sari.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and selected for ampicillin resistance."

59 c 145 g 77 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coll XL10-Gold (Stratagene) cells
/note="Vector: pSPORT1; Site_1: Sal I; Site_2: Not I; Non-normalised library, directionally cloned into pSPORT1. Derived from endosperm tissue dissected from developing grains (8 days post anthesis) in glasshouse grown barley plants. Developed as part of the barley transcriptome
                                                                                        /clone="EBed02_S0002_C23"
/clone_lib="IGF Harley EBed02 library"
/tissue_type="Endosperm"
/dev_stage="8 days post anthesis"
/lab_host="DH10B"
                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                          /organism="Hordeum vulgare
                                                                                                                                                                                      db_xref="taxon:4513"
                                                                                                                                                                                                         'cultivar="Optic"
                                                                                                                                                                                                                                                                                               has a Phred quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Caldwell, D., McCallum, N., Mudie, S., G., Marshall, D.F.M. and Waugh, R.
                                                                                                                                                                                                                                                                                                                                                                        DD2 5DA, Scotland,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 54.4;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481 bp mRNA linear EST UL-FEB 200
12 arley EBed02 library Hordeum vulgare cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                     score of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12;
                                                                                                                                                                                                                                                                                                                                                                            덪
                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 596;
                                                                                                                                                                                                                                                                                                     or over
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 01-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cardle, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pooideae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
```

BASE COUNT ORIGIN 270 a resources of BBSRC/SEERAD funded Gene Function) project."
33 c 137 g 41 t cereal IGF (Investigating

Qy B Q 망 밁 Qy 밁 Ş Matches Query Match
Best Local Similarity 438 378 144 agaagettacagatatgeagaettattageaaaagtaaatggegaatatacageagaett 203 318 204 agaagatggtggaaa 218 84 ctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagc 143 24 agaaacaccagaaacaccagaagaaccaaaagaagaagttacaatcaaagttaacttaat AGAAGATGAAGAAGA 452 107; Conservative 21.8%; 0, Score 54.2; Pred. No. 2 Mismatches DΒ ; 88 10; Indels Length 481; 0; Gaps 377 83 0

8

Вb Q

В Qy 망 QΥ 밁

Search completed: June 19, Job time: 6349 sec 2002, 18:11:45

₹		
		1 1 m
* * *		
		· .a
		•
	والمنافية	
More than the second of the se		. 4
9		
		•
		-
		•
		•
χ		
· ·		
		•
		: .
		-
		•

```
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               June 19, 2002, 17:34:34 ; Search time 46.05 Seconds (without alignments) 1328.181 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atgaacattaaatttgctgg.....ttaaatttgctggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
US-08-795-475-2

US-08-795-475-4

US-08-828-741B-1

US-09-160-567-1

US-09-160-567-1

US-09-160-567-7

US-09-160-567-7

US-08-828-741B-7

US-08-828-741B-3

US-08-828-741B-3

US-08-828-741B-3

US-09-160-567-5

US-09-160-567-1

US-09-160-567-1

US-09-160-567-1

US-09-160-567-1

US-09-160-567-1

US-09-092-458-1

US-08-257-073-1

US-08-462-625-45

US-08-462-625-45

US-08-462-625-38

US-08-462-625-38

US-08-462-625-38
                                                                                                                                                                                                                                                                                                                                                                                          Description
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                      Sequence
Sequence
                                                                                                                                                                 Sequence
Sequence
                                                                                                                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                          Sequence
Sequence
                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                               3, Appli
1, Appli
2, Appli
2, Appli
4, Appli
1, Appli
1, Appli
1, Appli
12, Appli
12, Appli
            Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
US-08-446-137B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,137
FILING DATE: 22-MAY-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Atkinson, Anthony
APPLICANT: Murphy, Jonathan P.
APPLICANT: Laurence, Oliver S.
APPLICANT: Duggleby, Clive J.
TITLE OF INVENTION: IMMUNOGLOBUL
TITLE OF INVENTION: FROM L PROTE
                                                                                                                                                                TELEPHONE: (206) 622-49
TELEFAX: (206) 682-6031
[NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 33,963
REFERENCE/DOCKET NUMBER: 100
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: Seattle CITY: Seattle CMATE: Washington
                                         ANTI-SENSE: NO
ANTI-SENSE: NO
TYPE: N-terminal
                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                           FRAGMENT TYPE:
ORIGINAL SOURCE:
ORGANISM: Pep
                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
  FEATURE:
                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                            STRANDEDNESS: double TOPOLOGY: linear
                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: UZIP: 98104
                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                   NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
40
40
40
40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3, Application US/08446137B
o. 6162903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
.8
.8
                                                                                                                                                                                                                                                                McMasters, David
              : Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                 PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Trowern, Angus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEED and BERRY LLP
                                                                                                                                                                                                            (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.00
                                                                                               DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       819
1669
864
289
289
297
397
231
236
6152
213
240
1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMUNOGLOBULIN BINDING PROTEINS DERIVED FROM L PROTEIN AND THEIR USES
                                                                                                                                                                                                                                                                                                                       US/08/446,137B
                                                                                                                                                                                  <u>ω</u>
                                                                                                                                                                                                                                                                  U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-461-697-191
US-09-461-697-189
US-09-461-697-185
US-09-461-697-185
US-09-461-697-184
US-08-858-207A-132
US-09-007-005-17
US-09-224-796-17
US-09-224-796-17
US-09-253-691-3
US-09-461-697-205
US-09-461-697-205
US-09-461-697-203
US-08-973-462-1
US-08-973-462-1
US-08-628-417-6
US-09-461-697-209-
US-08-628-417-6
US-09-461-697-209-
US-08-628-417-6
US-09-411-812A-2
                                                                                                                                                                                                                                     100084.406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                   #1.30
```

Result

ŏ

Score

Match Query

Length

SUMMARIES

US-08-446-137B-3

229

92.9 92.3 72.8 72.8

109

3279 921 1308 548 548 539 539 539 539 539 539

107 107 107 107 107 107 107

601

a

50.6 50.6 50.2

444.1 443.0 443.0 443.0 443.0 443.0 443.0 443.0 443.0 443.0 143.0

18 19 20 21 23 23 24 25 27

1

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database

Issued_Patents_NA:*

Minimum DB Maximum DB

seq

length: length:

2000000000

Total number of hits satisfying chosen parameters:

383533 seqs, 122816752 residues

IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Sequence Sequence Sequence Sequence Sequence

Sequence

Sequence

Sequence Sequence Sequence Sequence

181, App
182, App
184, App
184, App
184, App
187, App
187

Sequence

Sequence Sequence Sequence Sequence Sequence

Sequence

Title: Perfect score:

US-09-808-212A-1 249

Scoring table:

Run on:

OM nucleic - nucleic search, using sw model

Copyright

GenCore version (c) 1993 - 2000

4.5 Compugen Ltd

```
; NAME/KEY:
; LOCATION:
US-08-446-137B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
US-08-446-137B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Approx No. 6162903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                        TELEFAX: (206) 682-6031
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: MCMASters, David D.
REGISTRATION NUMBER: 33,963
REFERENCE/DOCKET NUMBER: 100
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 ggaaaataa 249
                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                  OMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 22-MAY
                                                                                                                                                                                                                                                                                        OPERATING SYSTEM:
                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
                              STRANDEDNESS:
                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAAACAGCAGAATTCAAA 747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAAATAA 876
                                                                                                                                                                                                                                                                                                                                                     98104
                                                                                                                                                                                                                                                                                                                                                                                                  Seattle
                                            nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/08446137B
                                                                                                                                                                                                                                                                                                                                                                               Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                        3279 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                           6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
1..876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Duggleby, Clive J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Murphy, Jonathan P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Atkinson, Anthony
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Trowern, Angus R
                                                                                                                                                                                                                                                                                          IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                           PatentIn Release #1.0, Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                             SEED and BERRY LLP
                 linear
                                                                                                                        (206) 622-4900
                                                                                                                                                                                                                                                                                                                      Floppy dis
                                                                                                                                                                                                                             22-MAY-1995
DNA (genomic)
                              double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FROM L PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMMUNOGLOBULIN BINDING PROTEINS DERIVED FROM L PROTEIN AND THEIR USES
                                                                                                                                                                                                                                                  US/08/446, 137B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 231.4;
Pred: No. 1.
                                                                                                                                                        100084.406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7e-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                  . 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    807
```

US-08-795-475-2

Sequence 2, Application Patent No. 5965390 GENERAL INFORMATION:

US/08795475

1755

1695

APPLICANT: BJYTCK, LATS APPLICANT: SJYDTING, Ulf TITLE OF INVENTION: PROTEIN L AND HYBRID PROTEINS THEREOF

CORRESPONDENCE ADDRESS

ADDRESSEE:

6300 Columbia Center, 701 Fifth Avenue

SEED and BERRY LLP

NUMBER OF SEQUENCES:

COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

COUNTRY:

USA

98104-7092 Seattle Washington

```
Qy
                                                                                                                                                                                                                                                         δÃ
                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                               US-08-446-137B-1
                                                       밁
                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FRAGMENT TYPE: N-terminal ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: NO
                                                                                                                                                                                                                               1696
                                                                                                                                                                       1636 GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAACAGCAGAATTCAAA
1816 GGAAAAGAA 1824
                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Peptostreptococcus asaccharolyticus STRAIN: 1018
                                                                                    181
                          241 ggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: mat_peptide ... LOCATION: 280:.3183 OTHER INFORMATION: /codon_start= 280 OTHER INFORMATION: /product= "mature"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: CDS:
LOCATION: 103.3186
OTHER INFORMATION: /
OTHER INFORMATION: /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: 103..3186
                                                                                                                                                                                      61 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                               DENTIFICATION METHOD:
                                                       AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT 1815
                                                                            aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaaatttgct 240
                                                                                                              GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGTA
                                                                                                                             237;
                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                              misc_signal
208..279
                             249
                                                                                                                                                                                                                                                                                                           92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product= "immature protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /number=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= "mature prote
/evidence= EXPERIMENTAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ): experimental
/codon_start= 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start= 103
                                                                                                                                                                                                                                                                                                         Score 229.8; DB 4; Pred. No. 5.4e-47;
                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                12;
                                                                                                                                                                                                                                                                                                                        Length 3279;
                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                 Gaps
```

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-795-475-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
COUNTRY: USA
COUNTRY: USA
ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Flappy disk
MEDIUM TYPE: Flappy disk
MEDIUM TYPE: PLAPPY DOS/MS-DOS
MS-DOS/MS-DOS
MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS-DOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: Bjvrck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            quence 4, Application US/08795475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Bjvrck, Lars
APPLICANT: Sjvbring, Ulf
TITLE OF INVENTION: PROTEIN L AND HYBRID PROTEINS THEREOF
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          887 GTAAGAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              182 atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 gaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaa 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         653 TAAATATTAAATTTGCTGGAAAAGAAA-----AAACACCAGAAGAACCAAAAGAAGAAG 706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242 gaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 ttaceatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 11-FEE CLASSIFICATION: 43:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                            CITY: Seattle
                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAACATTTGCAGAAGCAACAGCAGAAGCATACAGATACGCTGACTTATTAGCAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McMasters, David מי
ממידוו McMasters, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          921 base pairs
                                                                                                                                                                                                                                                                                                                 E: SEED and BERRY LLP 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Escherichia coli LE392/pHDL, DSM 7054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.30
                 PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72.8%;
86.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08/795,475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33,963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100084.402D1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 181.2; DB Pred. No. 1.9e-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                     701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 921;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                  δõ
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                        RESULT 5
US-08-828-741B-1
                                                                                                                                                                       Sequence 1, Application US/08828741B Patent No. 6043069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 214; Conser
                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (206) 682-60 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: UN
                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
              NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGINAL SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                TITLE OF INVENTION: CATALYTIC ANTIBODIES AND A METHOD OF TITLE OF INVENTION: PRODUCING SAME
                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                        767
                                                                                                                                                                                                                                                                                887
                                                                                                                                                                                                                                                                                                               242 gaaaataa
                                                                                                                                                                                                                                                                                                                                                                     182 atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg 241
                                                                                                                                                                                                                                                                                                                                                                                                                                        122 gaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaa 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         707 TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           653 TAAAATATTAAATTTGCTGGAAAAGAAA-----AAACACCAGAAGAACCAAAAGAAGAAG 706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1308 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTAAGAAA
                                                                                                                                                                                                                                                                                                                                                 ATGGTAAATATACAGCAGACTTAGAAGATGGTGGATACACTATTAATATTAGATTTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                      GAACATTTGCAGAAGCAACAGCAGAAGCATACAGATACGCTGACTTATTAGCAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  McMasters, David
                                                                  Treutlein, Herbert R
/ENTION: CATALYTIC A
                                                                                                 Tarlinton, David M
                                                                                                                       Suess,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                   Koentgen, Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Escherichia coli L392/pHDLG, DSM 7055
 SCULLY,
                                                                                                                                                                                                                                                                                894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (206)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           682-6031
                                                                                                                     Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72.8%;
 SCOTT, MURPHY & PRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/795,475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 181.2; DB 2; Pred. No. 2.1e-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100084.402D1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6,
```

Gaps

766

COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

COUNTRY:

New York

400 Garden City Plaza arden City United States of America

11530 Garden STREET:

COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,

Version #1.30

1;

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ,
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS-08-828-741B-1
                                                                                                                                                                                                                                                                                                                                                                                                                               us-09-160-567-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/09160567 Patent No. 6326179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 230 901 SANS UR INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                            ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (516) 742-4343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             URRENT APPLICATION DATA:
                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          172 GAAGCTTATGCGTATGCAGATACTTTGAAGAAAGACAATGGTGAATATACTGTAGATGTT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        145 gaagettacagatatgeagaettattageaaaagtaaatggegaatatacageagaetta 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                112 TTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAAAGCGACCTCG 171
               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      232 GCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   205 gaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                              PPLICANT: Tarlinton, David M.
PPLICANT: Treutlein, Herbert R.
TPLE OF INVENTION: CATALYTIC ANTIBODIES AND A METHOD OF
ITLE OF INVENTION: PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85 tttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagca 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 2
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52 GTAGCGCAGGCCGCTCCGAAAGATAACACGGAAGAAGTCACGATCAAAGCGAACCTGATC 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25 gaaacaccagaaacaccagaagaaccaaaagaagaagttacaatcaaagttaacttaatc 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION:
                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH:
                                                  OPERATING SYSTEM:
                                                                                                                                         COUNTRY:
                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          153;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                           Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DiGiglio,
                                                                                                                                                          New York
                                                                                                                                                                                          400 Garden City Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (516) 742-4366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linea
                                                                                                                                       United States of America
                                                                                                                                                                                                                                                                                                                                                         Koentgen,
                                PatentIn Release #1.0, Version #1.30
                                                  IBM PC compatible SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                               SCULLY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Frank
                                                                                                                                                                                                                                                                                                                                        Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44.1%;
                                                                                                                                                                                                                                                                                                                                                            Frank
                                                                                                                                                                                                               SCOTT, MURPHY & PRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/828,741B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31,346
US/09/160,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 109.8; DB 3
Pred. No. 2.5e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             рв 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

```
QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LOCATION:
US-09-160-567-1
                                                                                                                                                                                                                                                                                                                                                                                                                US-08-828-741B-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (516) 742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ 1D NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 548 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                            Sequence 12, Application US/08828741B Patent No. 6043069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC:DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                         TITLE OF INVENTION: CATALYTIC ANTITITLE OF INVENTION: PRODUCING SAME
                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 GCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     145 gaagettacagatatgeagaettattageaaaagtaaatggegaatataeageagaetta 204
                                                                                                                                                                                                                                                                                                          PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 68.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85 tttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagca 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           52 GTAGCGCAGGCCGCTCCGAAAGATAACACGGAAGAAGTCACGATCAAAGCGAACCTGATC 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25 gaaacaccagaaacaccagaagaaccaaaagaagttacaatcaaagttaaacttaatc 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
                                                                                                                                     COUNTRY:
                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGCTTATGCGTATGCAGATACTTTGAAGAAAGACAATGGTGAATATACTGTAGATGTT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic acid
                                                                                                                      11530
                                                                                                                                                                     Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DiGiglio, Frank
                                                                                                                                                   New York
                                                                                                                                                                                    400 Garden City Plaza
                                                                                                                                                                                                                                                                          Treutlein, Herbert R.
WENTION: CATALYTIC ANTIBODIES AND A METHOD OF
                                                                                                                                     United States of America
                                                                                                                                                                                                                                                                                                            Tarlinton, David M.
                                                                                                                                                                                                                                                                                                                              Suess,
                                                                                                                                                                                                                                                                                                                                           Koentgen, Frank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (516) 742-4343
                                                                                                                                                                                                      SCULLY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  742-4366
                                                                                                                                                                                                                                                                                                                              Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .08/828,741
                                                                                                                                                                                                          SCOTT, MURPHY & PRESSER
US/08/828,741B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 109.8;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .5e-18;
es 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

ATTORNEY/AGENT INFORMATION:

DiGiglio, Frank

REFERENCE/DOCKET NUMBER: 10591

REGISTRATION NUMBER:

31,346

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-160-567-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12,
Patent No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (516) 742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                    OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: (516) 742-4343
                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               154
                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 235 tttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                175 aaagtaaatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaa 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      115 ttcaaaggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagca 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214 TTCGCGGGTAAAGAA 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94
                                                      APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34 GAAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAA 93
                                    CLASSIFICATION:
                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS:
IOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gaagaagttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaa 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAA 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140;
                                                                                                                                                                                                                      SSEE: SCULLY, SCOTT, MURPHY & PRESSER
T: 400 Garden City Plaza
Garden City
: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H: 539 base pairs nucleic acid
                                                                                                                                                                                           11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                        6326179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09160567
                                                                                                                                                                                                                                                                                                                             Tarlinton, David M.
Treutlein, Herbert R.
TYPENTION: CATALYTIC ANTIBODIES AND A METHOD OF
VENTION: PRODUCING SAME
                                                                                                                                                                                                        United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (516) 742-4366
                                                                                                                                                                                                                                                                                                                                                                                                                  Koentgen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                single
                                                                                                                                                                                                                                                                                                                                                                                                  Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                Frank
08/828,741
                                                                    us/09/160,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 107; DB 3;
Pred. No. 1.2e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                      Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length_539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
```

```
Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-828-7418-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-160-567-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 140
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 7, Application US/08828741B Patent No. 6043069
                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (516) 742-4366
TELEX: 230 901 SANS UR
INFORMATION FOR SEQ ID NO:
                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 539 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
ATTORNEY/AGENT INFORMATION NAME: DiGiglio, Frank S
                                                                                                                                                                                                                                                                                                                                           APPLICANT: Treutlein, Herbert R.
                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: SCULLY, S
                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              214 TTCGCGGGTAAAGAA 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94 TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34 GAAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAACTGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
hes 140; Conserv
                                  CLASSIFICATION:
                                                                                                                                                                                                                             STREET: 400 Garden CITY: Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                 FILING DATE:
                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ttcaaaggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagca 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gaagaagttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaa 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCCTGAACATCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                aaagtaaatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaa 234
                                                                                                                                                                                 11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DiGiglio,
                                                                                                                                                                                                                 New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (516) 742-4366
                                                                                                                                                                                               United States of America
                                                                                                                                                                                                                                                                                                                                                                                            Koentgen,
                                                                                                                                                                                                                                                                                                                                                                               Suess,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (516)
                                                 26-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                             Gabriele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Frank
                                                                                                                                                                                                                                                                                                              CATALYTIC PRODUCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43.0%;
71.8%;
                                                                                                                                                                                                                                              SCOTT, MURPHY & PRESSER City Plaza
                                                                                                                                                                                                                                                                                                                                                                                          Frank
                                                                US/08/828,741B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31,346
                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 107; DB 4;
Pred. No. 1.2e-17;
0; Mismatches 55
                                                                                                                                                                                                                                                                                                              ANTIBODIES AND A METHOD OF SAME
                                                                                                 Version #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93
```

0,

TELEPHONE: (516) 742-4343

(516)

REFERENCE/DOCKET NUMBER: REGISTRATION NUMBER:

10591

TELEPHONE:

```
.ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  us-09-160-567-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NAME/KEY:
; LOCATION:
US-08-828-741B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/09160567
Patent No. 6326179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 230 901 SANS UR NFORMATION FOR SEQ ID NO:
                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
ATTORNEY/AGENT INFORMATION: NAME: DiGiglio, Frank S.
                                                                                                                          SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          115 ttcaaaggaacatttgaagaagcaacagcagaagcttacagattatgcagacttattagca 174
                                                                                                                                                                                                                                                                                                                                               PPLICANT: Treutlein, Herbert R.

ITLE OF INVENTION: CATALYTIC ANTIBODIES AND A METHOD OF INVENTION: PRODUCING SAME
                                                                              CLASSIFICATION:
                                                                                                                                                          OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                 FILING DATE:
                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55 gaagaagttacaatcaaagttaacttaatctttgcagatggâaagatacaaacagcagaa 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAA 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aaagtaaatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCGCGGGTAAAGAA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION:
                                                                                                                                                                                                                             11530
                                                                                                                                                                                                                                                                       Garden City
                                                                                                                                                                                                                                                         New York
                                                                                                                                                                                                                                                                                    E: SCULLY, SCOTT, MURN
                                                                                                                                                                                                                                        United States of America
                                                                                                                                                                                                                                                                                                                                                                                                    Tarlinton, David M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (516)
                                                                                                                                                                                                                                                                                                                                                                                                                                    Koentgen,
                                                                                                                                                                                                                                                                                                                                                                                                                       Suess,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1..599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                       Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43.0%;
71.8%;
                                             08/828,741
                                                                                                           us/09/160;567
                                                                                                                                                                                                                                                                                                      MURPHY & PRESSER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 107;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                         Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 3;
.2e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         234
```

```
RESULT 11
US-08-828-741B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY:
; LOCATION:
US-09-160-567-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
                                                                                                         CURRENT APPLICATION DATA:
                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 599 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                       ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 tttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           115 ttcaaaggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagca 174
                                                                                                                                                                                                                                                                                                                                         ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               274 TTCGCGGGTAAAGAA 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214 AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAA 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154
          NAME: DiGiglio, Frank S. REGISTRATION NUMBER: 31,346
                                                            CLASSIFICATION:
                                                                           APPLICATION NUMBER: FILING DATE: 26-MA
                                                                                                                         SOFTWARE:
                                                                                                                                        OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55 gaagaagttacaatcaaagttaaacttaatctttgcagatggaaagatacaaacagcagaa 114
                                                                                                                                                         COMPUTER:
                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                        MEDIUM TYPE:
                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aaagtaaatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaa 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG 213
                                                                                                                                                                                                                                        Garden City
: .New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08828741B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               230 901 SANS UR
                                                                                                                                                                                                                                                                      E: SCULLY, SCOTT, MURPHY & PRESSER 400 Garden City Plaza
                                                                                                                                                                                                                       United States of America
'DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                    Suess, Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                      Treutlein,
                                                                                                                                                                                                                                                                                                                                                                                Tarlinton, David M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
1..599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (516)
                                                                                                                       PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                     Koentgen, Frank
                                                                                                                                      IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (516)
                                                                                                                                                                      Floppy disk
                                                                         26-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43.0%;
                                                                                                                                                                                                                                                                                                                                      CATALYTIC ANTIBODIES AND A METHOD PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                     n, Herbert
CATALYTIC
                                                                                         US/08/828,741B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31,346
10591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 107; DB 4;
Pred. No. 1.2e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                         Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 599;
                                                                                                                                                                                                                                                                                                                                                       QF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
```

0;

TELEFAX: (516) 742-4366 TELEX: 230 901 SANS UR INFORMATION FOR SEQ ID NO: 5:

(516)

TELEPHONE:

(516) 742-4343

SEQUENCE CHARACTERISTICS:

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-160-567-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION:
JS-08-828-741B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches/ 155;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tent No.
                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                PRIOR APPLICATION DATA:
APPLICATION' NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135 agcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatac 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    666 TGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         195 agcagacttagaagatggtggaaaccattagacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546 GAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAA 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486 TGGTGGTAGCGAAAACCTGTACTTCCAGGGTGGTAGCGCCGAAGAAGTCACGATCAAAGC 545
REFERENCE/DOCKET NUMBER: 10 ELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                   ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: DiGiglio, Frank S. REGISTRATION NUMBER: 31,346
                                                                                  FILING DATE:
                                                                                                                                   CLASSIFICATION:
                                                                                                                                                    FILING DATE
                                                                                                                                                                                                                OPERATING SYSTEM:
                                                                                                                                                                                                                                     COMPUTER:
                                                                                                                                                                                                                                                                                     COUNTRY: UZIP: 11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 taacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaaga 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                     MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H: 1031 base pairs nucleic acid
                                                                                                                                                                                                                                                                                                                                  Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/09160567
                                                                                                                                                                                                                                                                                                                      New York
                                                                                                                                                                                                                                                                                                                                                  E: SCULLY, SCOTT, MURPHY & PRESSER 400 Garden City Plaza
                                                                                                                                                                                                                                                                                                   United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                               Tarlinton, David M.
Treutlein, Herbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
1..1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Koentgen,
                                                                                                                                                                                                    PatentIn
                                                                                                                                                                                                                IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
                                                                                                                                                                                                                                                 Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gabriele M.
                                                                                                                                                                                                                                                                                                                                                                                                                  In, Herbert R.

CATALYTIC ANTIBODIES AND A METHOD OF PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Frank
                                                                                                                                                                                                 Release #1.0, Version #1.30
                                                                                                  08/828,741
                                                                                                                                                                US/09/160,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 107; DB 3; Pred. No. 1.3e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
```

```
δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-828-741B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-160-567-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 155; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3, Applic Patent No. 6043069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (516)
TELEX: 230 901
INFORMATION FOR SEQ
                                                                                                                                                   OPERATING SYSTEM: PC-DOS/MS-DOS
SOTWARE: Patentin Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/828,741B
                                                                                                                                                                                                                                                                                             STREET: 400 CITY Garden City
STATE: New York
Thirted St
                                                                 ATTORNEY/AGENT INFORMATION:
NAME: DiGiglio, Frank S.
REGISTRATION NUMBER: 31,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
              TELEPHONE: (516) 742-4343
                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    195 agcagacttagaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      666 TGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546 GAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAA 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               486 TGGTGGTAGCGAAAACCTGTACTTCCAGGGTGGTAGCGCCGAAGAAGTCACGATCAAAGC 545
                                                                                                                                                                                                                                                                                                                                                                                                                 ITLE OF INVENTION:
                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                      CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE:
                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             taacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaaga 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tyctygaaaagaaacaccagaaacaccagaagaaccaaaagaagttacaatcaaagt 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             agcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/08828741B
                                                                                                                                                                                                                                                                                                                                            E: SCULLY, SCOTT, MURPHY & PRESSER 400 Garden City Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : (516) 742-4343
(516) 742-4366
(516)
                                                                                                                                                                                                                                                                                            United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                               Treutlein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tarlinton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Koentgen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                      26-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SANS UR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gabriele
                                                                                                                                                                                                                                                                                                                                                                                                               PRODUCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43:0%;
                                                                                                                                                                                                                                                                                                                                                                                                             n, Herbert R.
CATALYTIC ANTIBODIES AND A METHOD
PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Frank
                                                                                                                                                                                        Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 David M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 107; DB 4;
Pred. No. 1.3e-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4; Length 1031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
```

Gaps

0

INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1490 base pair

TYPE: nucleic acid

TOPOLOGY: STRANDEDNESS:

linear

single

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-828-741B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Appli
Patent No. 632617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -09-160-567-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546 GAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         606
                                                                                                                                                      CLASSIFICATION: PRIOR APPLICATION DATA:
                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195 agcagacttagaagatggtggaaaccatatgaacattacatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: DiGiglio, Frank S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15 tgctggaaaagaaacaccagaaacaccagaagaagaagttacaatcaaagt 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                            TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                             ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION:
TELEFAX: (--
                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                      NAME: DIGIGLIO, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 10
                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTGGTAGCGAAAAACCTGTACTTCCAGGGTGGTAGCGCCGAAGAAGTCACGATCAAAGC 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 agcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatac 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       155;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11530
                                                                                                                                                                                                                                                                                                                                                       Garden City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09160567
                                                                                                                                                                                                                                                                                                                                          New York
                                                                                                                                                                                                                                                                                                                                                                     400 Garden City Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                Tarlinton, David M.
Treutlein, Herbert R.
Treutlein, Herbert R.
TYPENTION: CATALYTIC ANTIBODIES AND A METHOD OF
TVENTION: PRODUCING SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Suess, Gabriele M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                           United States of America
      (516) 742-4366
30 901 SANS UR
                                                                                                                                                                                                                                 PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₹oentgen,
                                                                                                                                                                                                                                                                                                                                                                                     SCULLY,
                                    (516) 742-4343
                                                                                                                                                                                                                                                                              Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Frank
                                                                                                                                                                                                                                                                                                                                                                                       SCOTT, MURPHY & PRESSER
                                                                                                                                           08/828,741
                                                                                                                                                                                                      US/09/160,567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.4e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 3; Length 1490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 665
```

```
γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-160-567-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-072-610-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 43.0%;
Best Local Similarity 66.0%;
Matches 155; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence 1, Application US/08072610
patent No. 5532133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
                                            TELEX: 236687
INFORMATION FOR SEQ ID NO: 1
SEQUENCE-CHARACTERISTICS:
LENGTH: 3337 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: 1. MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Barnwel TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: GOGOTIS, Adda
REGISTRATION NUMBER: 29,714
                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135 agcaacagcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatac 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               486 TGGTGGTAGCGAAAACCTGTACTTCCAGGGTGGTAGCGCCGAAGAAGTCACGATCAAAGC 545
                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: (212)527-7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          666, TGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195 agcagacttagaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           546 GAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAA 605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75 taacttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaaga 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                               TELEFAX:
                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                   APPLICATION NUMBER: US
              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                        TRY: USA
10022-7513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
                            NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                      New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1490 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Darby and Darby 805 Third Ave.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Barnwell,
                                                                                                                  (212)753-6237
                                                                                                                                                                                                                                                                                                     PatentIn
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
                double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Monoclonal Antibodies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasmodium vivax Blood Stage Antigens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             John
                                                                                                                                                                                                                                                                                                       Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                       US/08/072,610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 107; DB Pred. No. 1.4e. 0; Mismatches
                                                                                                                                                                    5986/07686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and Diagnostic Assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ,00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
```

665

. :

```
#MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Plasmodium vivax
HAMEDIATE SOURCE:
CLONE: PVMB3.3.1
US-08-072-610-1
Search completed: June 19, 2002, 18:43:44 Job time: 4150 sec
                                                                     В
                                                                                            δÃ
                                                                                                                         В
                                                                                                                                                  Q
                                                                                                                                                                                DЪ
                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                         Query Match 20.3%; Score 50.6; DB 1; Length 3337; Best Local Similarity 53.9%; Pred. No. 0.00061; Matches 104; Conservative 0; Mismatches 89; Indels 0; Gaps
                                                               199 gacttagaagatg 211
|| ||||| |
1458 GAAGGAGAAGAAG 1470
                                                                                                                      79 ttaatctttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagca 138
                                                                                                                                                                                                                                                                                           0;
```

A	
البية الأعادي المتراح المبرا أنف المرافعة الأعوار بالواد السناء للمارات	
*	
	<u> </u>

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                            Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run on:
                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                 244.2
241
                                                                                                                          245.8
244.2
                                                                                                                                                                                                       Score
                     229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length: 0
length: 2000000000
  100.0
98.7
98.1
98.1
96.8
92.9
92.3
92.3
                                                                                                                                                                                                       Match
                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       June 19, 2002, 17:38:59 ; Search time 214.27 Seconds (without alignments) 1995.201 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N_Geneseq_032802:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1736436 seqs, 858457221 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-808-212A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atgaacattaaatttgctgg.....ttaaatttgctggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /SIDS1/gcgdata/geneseq/geneseqn-embl
/SIDS1/gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS1/gcgdata/geneseq/geneseqn-embl
/SIDS1/gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIDS1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /SIDS1/gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /SIDS1/gcgdata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /SIDS1/gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                                                                                                                                                                                                       /SIDS1/gcgdata/geneseq/geneseqn·emb1/NA2001A.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn·emb1/NA2001B.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn·emb1/NA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1992.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1993.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1994.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1995.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1996.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1997.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1990.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1991.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1998.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                     /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2000.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gcgdata/geneseq/geneseqn-embl
                                                                                                                                                                                                           DB
                                                                                                                                                                                                         Ħ
                                                                               AAA08443
AAA08442
AAA08442
AAA08445
AAA08444
AAQ50947
AAQ50946
AAQ51556
AAA08433
                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3472872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /NA1988.DAT:*
                 Ig light chain bin PpL mutant nucleot PpL mutant nucleot PpL mutant nucleot PpL mutant nucleot Immunoglobulin bin Sequence encoding Sequence encoding
                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DX AX AX I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA08425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
```

Plasmodium vivax	AAH76457	22	143		$\hat{}$
DNA encoding a sec	AAX15174	20	(4)		$\overline{}$
P	AAT34620	17	3337		$\overline{}$
DNA encoding no	AAS90702	23	_		-
DNA encoding r	AAS69549	23	483		51.4
Mouse poly Ig rec	AAV15422	19	1.3		
	AAS90722	23	4		1.1
Plasmodium falcip	AAA70099	21	3579		55
	AAT05868	17	443	٠	56
DNA encoding	AAS90909	23	379		56
DNA encoding	AAS75428	23	379		56
DNA encodin	AAQ87587	16	~		58.6
Expression ve	AAA71428	21	\sim		•
DNA encoding (AAX34591	20	1490		107
Growth factor	AAT91587	18	Δ		107
DNA encoding	AAX34596	20	4	•	107
DNA enc	AAX34592	20			107
Growth factor T	AAT91589	18	1031		107
 DNA encoding a 	AAX34593	20	. 599	43.0	107
Growth factor I	AAT91588	18	599		107
DNA encoding a	AAX34595	20	539		107
Growth factor I	AAT91591	18	539		107
DNA encoding a	AAX34590	20	548		10
Growth	AAT91586	18	548		10
	AAA08430	21	213	•	~1
	AAA08426	21	228	•	136.4
	AAA08427	21	216	•	56
	AAA08428	21	216	•	3
Peptostrep	AAA08429	21	216		71
Nucleotid	AAF24730	22	1418	٠	-
Sequence enc	AAQ50453	14	1308		8
Nucleotide se	AAF24725	22	1305		8
ProtL-CBD	AAC84644	22	1305		8
	AAQ50452	14	921	•	8
	AAA08431	21	213		_
Peptostreptococcus	AAA08432	21	222		2

ALIGNMENTS

20-JUL-2000 AAA08425;

(first entry)

AAA08425 standard; DNA; 249 BP

_							٠			_		_	_								
**	DR	DR	Y PI	XX XX	XX	PR	PR	XX	Jd	××	PD	XX	PN	××	SO	XX	KW	KW	KW	XX	, DE
	P-PSDB; AAY82536.	WPI; 2000-271441/23.	Gore MG, Beckingham JA, Roberts SE;	(ACTI-) ACTINOVA LTD.		26-APR-1999; 99GB-0009578.	14-SEP-1998; 98GB-0019998.		14-SEP-1999; 99WO-GB03048.		23 - MAR - 2000 .		WO200015803-A1		Peptostreptococcus sp.		immunoaffinity chromatography; ds.	Peptostreptococcus; human immunoglobulin kappa chain;	Immunoglobulin light chain binding protein; PpL; protein L;		Ig light chain binding protein PpL construct DNA sequence SEQ ID NO

Peptostreptococcus

New modified immunoglobulin light chain binding

protein, useful in

of 400

nM or

```
og.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QΥ
                                                                                                                                                                                                                                                                                                                                                                AAA08443
                                                                                                                                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Вþ
                                                                                                                                                                                            DR X PIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 249; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunoaffinity chromatography, has a dissociation constant of more at pH8 with respect to human immunoglobulin Kappa chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes an immunoglobulin (Ig) light chain binding protein (P1) which has been modified by one or more amino acid substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes an Ig light chain binding PpL construct derived from Peptostreptococcus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein L.
                                                                                                                                                                                                                                                                                 PpL mutant nucleotide sequence SEQ ID NO:20.
                                                                                                                                                                                                                                                                                                                                                                 AAA08443 standard; DNA; 249
                                                                                                                                                                                                                                                                                                              20-JUL-2000
                                                                                                                                                        23-MAR-2000
                                                                                                                                                                                 WO200015803-A1
                                                                                                                                                                                                        Peptostreptococcus
                                                                                                                                                                                                                                                          Immunoglobulin light chain binding protein; PpL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
WPI; 2000-271441/23
P-PSDB; AAY82546.
                                       Gore MG,
                                                             (ACTI-) ACTINOVA LTD
                                                                                         14-SEP-1998;
26-APR-1999;
                                                                                                                               14-SEP-1999;
                                                                                                                                                                                                                                  immunoaffinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                               241 ggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 38-39; 56pp; English.
                                       Beckingham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 116 A; 36 C;
                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                  chromatography; site directed mutagenesis;
                                                                                          98GB-0019998.
99GB-0009578.
                                                                                                                                 99WO-GB03048
                                                                                                                                                                                                                                                   human immunoglobulin
                                          JA,
                                         Roberts SE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                    BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 249; DB 2
Pred: No. 6e-45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47 G; 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T; 0 other;
                                                                                                                                                                                                                                                  in; PpL; protein L; kappa chain; mutan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                        ; mutant;
esis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
```

```
PT PT XX
                              New modified immunoglobulin light chain binding protein, used immunoaffinity chromatography, has a dissociation constant of more at pH8 with respect to human immunoglobulin kappa-chain
                                                              of 400
                                                                 no Ma
```

The present invention describes an immunoglobulin (Ig) light chain binding protein (P1) which has been modified by one or more amino acid substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes a mutant Peptostreptococcus protein L, which is an Ig light chain binding protein, from the present invention. Example 1; Page 51; 56pp; English.

Sequence 249 BP; 117 A; 37 C; 47 G; 48 T; 0 other;

DB 21;

249;

0;

*858888888

```
Ş
                                                                                              β
                                                                                                           φ.
                                                                                                                              뫄
                                                                                                                                             Qγ
                                                              Db
                               밁
                                              γg
밁
                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                              Matches
               241
                              181 aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                               121
241
                                               181
                                                               121
                                                                                             61 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                               61
                                                                                                                                     gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                              ggaacatttgaagaagcaacagcagaagcttacagaaacgcagacttattagcaaaagta
       ggaaaataa 249
                                      ggaaaataa
                                                                                                                                                               247; Conservative
                                                                                                                                                                        98.7%;
99.2%;
                                                                                                                                                                 0
                                                                                                                                                                        Score 245.8;
Pred. No. 2.
                                                                                                                                                                  Mismatches
                                                                                                                                                                           .9e-44;
                                                                                                                                                                   Indels
                                                                                                                                                                    0;
                                                                                                                                                                   Gaps
                                                                                                                                    60
                                                                                                                                                   60
                                                                                                    120
                                                                                                                   120
                                                                                    180
                                                    240
                                                                    180
```

RESULT AAA08442 AAA08442 standard; DNA; 249

AAA08442;

20-JUL-2000 (first entry)

PpL mutant nucleotide sequence SEQ ID NO:19

peptostreptococcus;
immunoaffinity chro Immunoglobulin light chromatography; site directed chain binding immunoglobulin protein; PpL; mutagenesis; chain; mutant;

Peptostréptococcus

Z Z Z

XSX

23-MAR-2000

14-SEP-1999; 99WO-GB03048

14-SEP-1998; 26-APR-1999; 98GB-0019998 99GB-0009578

PR PR PA XX PA XX PA XX PA XX (ACTI-) ACTINOVA LTD

Gore MG, Beckingham JA, Roberts

WPI; 2000-271441/23

or.

```
RESULT
AAA08445
                                                                                                                                                                                                                                                                                                                                                                                                    뫄
                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SXCCCCCCXXX PTTXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 98.8
Matches 246; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        binding protein (P1) which has been modified by one or more amino acid substitutions such that the dissociation constant (Rd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes a mutant Peptostreptococcus protein L, which is an Ig light chain binding protein, from the present invention.
                                (ACTI-) ACTINOVA LTD
                                                      14-SEP-1998;
26-APR-1999;
                                                                                        14-SEP-1999;
                                                                                                              23-MAR-2000
                                                                                                                                    WO200015803-A1
                                                                                                                                                          Peptostreptococcus
                                                                                                                                                                                                       Immunoglobulin light chain binding
                                                                                                                                                                                                                                                    20-JUL-2000
                                                                                                                                                                                                                                                                           AAA08445
                                                                                                                                                                                                                                                                                                AAA08445 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New modified immunoglobulin light chain binding protein, useful in immunoaffinity chromatography, has a dissociation constant of 400 nM more at pH8 with respect to human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L
                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ggaaaataa
|||||||||

        aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct

        [[[]]]]]]]]]]]]]]

                                                                                                                                                                                                                                                                                                                                                                                                                                                            ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                       ggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                   aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaacataaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY82545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              вP;
                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                             249
                                                      98GB-0019998
99GB-0009578
                                                                                        99WO-GB03048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50-51; 56pp; English.
                                                                                                                                                          gp
                                                                                                                                                                                           human immunoglobulin kappa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; 36 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.1%;
                                                                                                                                                                                                                            sequence
                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 244.2; DB 2
Pred. No. 6:5e-44;
D; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47 G;
                                                                                                                                                                                                                             SEQ ID
                                                                                                                                                                                         protein; PpL; protein L;
obulin kappa chain; mutan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49 T; .0 other;
                                                                                                                                                                                 directed
                                                                                                                                                                                                                             NO:22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 21;
                                                                                                                                                                                 mutagenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                mutant;
sis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

Gore MG,

Beckingham JA,

Roberts

SE;

Gore MG,

Beckingham

ĴΑ,

Roberts

SE;

```
RESULT
AAA08444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                               δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches: 246; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 200
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes an immunoglobulin (Tg) light chain binding protein (P1) which has been modified by one or more amino acid substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes a mutant Peptostreptococcus protein L, which is an Ig light chain binding protein, from the present invention.
                                                                                                                                                                                                                                                                                                                      AAA08444 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 53; 56pp; English.
                                                 14-SEP-1998;
26-APR-1999;
                                                                                        14-SEP-1999;
                                                                                                                 23-MAR-2000
                                                                                                                                         WO200015803-A1
                                                                                                                                                                  Peptostreptococcus
                                                                                                                                                                                                                                                                                                 AAA08444;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      more
                        (ACTI-)
                                                                                                                                                                                          Immunoglobulin light chain binding protein; PpL; protein Peptostreptococcus; human immunoglobulin kappa chain; mut immunoaffinity chromatography; site directed mutagenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New modified immunoglobulin light chain binding protein, useful immunoaffinity chromatography, has a dissociation constant of more at pH8 with respect to human immunoglobulin kappa-chain.
                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                 u
                                                                                                                                                                                                                                                                                                                                                                                                    ggaaaataa
|||||||||
                                                                                                                                                                                                                                                                                                                                                                                     ggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               atgaacattaaatttgctggaaaagaaacaccagaaacaccagaagaacccaaaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                    aatggcgaatatacagcagacttagaagatggtggaaaccatatgaaccattaaattttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                        aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttacatgcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-271441/23.
                        ACTINOVA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249
                                                                                                                                                                                                                                              nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP; 116 A;
                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                               249
                                                98GB-0019998
99GB-0009578
                                                                                        99WO-GB03048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.1%;
                                                                                                                                                                                                                                             sequence
                                                                                                                                                                                                                                                                                                                        249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37 C;
                                                                                                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 244.2; DB 2
Pred. No. 6.5e-44;
D; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47
                                                                                                                                                                                                                                             SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G;
                                                                                                                                                                                                                                              Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49 T; 0 other;
                                                                                                                                                                                                                                              NO:21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                           mutant;
sis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ul in 400 r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ηM
```

240

240

180 180 120

0;

```
RESULT
AAQ50947
         ъ
                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                              ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΨ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      binding protein (PI) which has been modified by one or more amino acid substitutions such that the dissociation constant (RG) of the protein with respect to human Ig kappa-chain is 400 nM or more at pHB. Pl is useful in immunoaffinity chromatography. The present sequence encodes a mutant Peptostreptococcus protein L, which is an Ig light chain binding protein, from the present invention.
                                                    repeat_unit
                                                                                                                                                                                            enzyme linked
                                                                                                                                                                                                                                                                                                             AAQ50947
                                                                                                                                repeat_unit
                                                                                                                                                                                                         Peptide;
                                                                                                                                                                                                                                 Immunoglobulin binding protein
                                                                                                                                                                                                                                                            18-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 52; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New modified immunoglobulin light chain binding protein, useful immunoaffinity chromatography, has a dissociation constant of 40 more at pH8 with respect to human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                        ggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                     ggaaaataa
|||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                       aatggcgaatggacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                 aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttagacgcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-271441/23
)B; AAY82547.
                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                        immunoglobulin; binding; analysis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 115 A; 37 C;
                                                                                                                                                                                            immunoabsorbant assay;
                                                                                                                                                                                                                                                                                                                                                                                              249
                                                                                                                                                                                                                                                                                                                                                                        249
                                                                                                                   /*tag=
                                                                                                       /note=
                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                           cdna;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96.8%;
"Repeat units are not adjacent, repetitions of this sequence are not 100% homologous and begin at nucleotide positions 313, 535 and
                                                                          "Repeat units are not adjacent, of this sequence are not 100% begin at nucleotide positions:
                                                                 begin
649"
                                                                                                                                                                                                                                                                                                           876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ny, has a dissociation constant of 400 human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 241;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50 G; 47 T; 0 other;
                                                                                                                                                                                                                                 gene derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                             SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21;
.2e-43;
                                                                                                                                                                                                        purification; ELISA;
                                                                                                                                                                                                                               from protein L gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٠,٥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
  homologous and 313, 535 and
                                                                             homologous and 214, 427 and
                                                                                                    repetitions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   n
M
                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
```

```
Qy
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   γg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PA XXX CCC CCC CCC XXX XXX CCC CCC CCC XXX XXX XXX
                                                                                                                                                                                                                                                                                                                                                 AAQ50946
                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PR PR XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g. ELISA. The synthey are free of wall binding.
                Peptide; immunoglobulin; binding; and
                                                                                                                        Sequence
                                                                                                                                                                                                                                                   AAQ50946;
                                                                                                                                                                                                                                                                                                               AAQ50946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 876 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       analysis, purification procedures and other biochemical processes g. ELISA. The synthetic molecules are of particular advantage if they are free of regions in protein L which exhibit albumin and control to the control of the contro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 13;
                                                                                                                                                                                    18-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The synthetic immunoglobulin binding proteins L comprise repeated sequences from protein L v immunoglobulin kappa light chains. They can be compressed to the compression of the compres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         which bind
cell walls
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAR42204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Atkinson A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-MAY-1992;
24-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (PUBL-) PUBLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9322439-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atgaacattaaatttgctggaaaagaaacaccagaaacaccagaagaaccaaaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ggaaaataa
|||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aatggtgaatacacagcagacttagaagatggcggatacactatcaacatcaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gttacaatcaaagttaacttaatctttgcagatggaaaaacacaaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1993-368798/46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                    encoding
                                                                                                                                                                                                                                                                                                               standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Figure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 jlobulin binding proteins derived from
immunoglobulin kappa light chains but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HEALTH LAB SERVICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92GB-0009804
92GB-0026928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93WO-GB00950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2;
                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; 141 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92
95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 68;
                                                                                                                                                                                                                                                                                                            3279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       757"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murphy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 231.4;
Pred. No. 4.:
                                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                           analysis; purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BOARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171 T; 0 other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trowern
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .2e-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        n L which bi
can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            derived t
which bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein L - not albumin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

0;

Peptococcus

magnus

0

```
The synthetic immunoglobulin binding proteins derived from protein L comprise repeated sequences from protein L which bind immunoglobulin kappa light chains. They can be used in protein analysis, purification procedures and other biochemical processes e.g. ELISA. The synthetic molecules are of particular advantage if they are free of regions in protein L which exhibit albumin and cell wall binding (The repeat regions commencing at nucleotide numbers 1045, 1261, 1483 and 1705).
                                                                                                                                                                                                                                                        07-MAY-1992;
24-DEC-1992;
                                                                                                                Disclosure;
                                                                                                                                               New immunoglobulin binding which bind immunoglobulin l
                                                                                                                                                                                                                                                                                       07-MAY-1993;
                                                                                                                                     cell walls
                                                                                                                                                                                P-PSDB;
                                                                                                                                                                                          WPI; 1993-368798/46
                                                                                                                                                                                                                                                                                                           11-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                       repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
Sequence 3279 BP; 1505 A; 481
                                                                                                                                                                                                                                                                                                                                WO9322439-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_unit
                                                                                                                                                                                                                                   (PUBL-) PUBLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_unit
                                                                                                                                                                                AAR42203
                                                                                                                                                                                                              Þ
                                                                                                                Figure 1;
                                                                                                                                                                                                              Duggleby
                                                                                                                                                                                                                                   HEALTH LAB
                                                                                                                                                                                                                                                       92GB-0009804
92GB-0026928
                                                                                                                                                                                                                                                                                       93WO-GB00950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
1045..1158
                                                                                                                                                                                                                                                                                                                                                                                                       2914...2934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1822..1938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 949..1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Repeat units are not adjacent, repetitions
    of this sequence are not 100% homologous and
    begin at nucleotide position 757"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    574..672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= Protein 490..573
                                                                                                                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                28pp;
                                                                                                                                                                                                                                                                                                                                                 "Repeat units are adjacent, repetitions of this sequence are not 100% homologous and begin at nucleotide positions 2935, 2953, 2968, 2986, 3001, 3019 and 3034"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or this sequence are not a begin at nucleotide posand 1705"
                                                                                                                                                                                                                                                                                                                                                                                                                        "Repeat units are not adjacent, of this sequence are not 100% begin at nucleotide positions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Repeat units are not adjacent, of this sequence are not 100% begin at nucleotide positions and 1597"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Repeat units are of this sequence
                                                                                                                                                                                                                                                                                                                                                                                                                 begin at
2731"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             begin
                                                                                                                                              g proteins de
kappa light
                                                                                                                                                                                                                                   SERVICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peat units are not adjacent,
this sequence are not 100%
gin at nucleotide positions
                                                                                                                                                                                                             Murphy
                                                                                                                English.
 625
                                                                                                                                                                                                              JP,
                                                                                                                                                                                                                                   BOARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۳
                                                                                                                                                          derived
                                                                                                                                               chains
                                                                                                                                                                                                              Trowern
                                                                                                                                               from
s but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         positions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   adjacent,
not 100%
                                                                                                                                                                                                              AR
                                                                                                                                              Protein L - not albumin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         t, repetitions
% homologous and
s 1261, 1483
                                                                                                                                                                                                                                                                                                                                                                                                                         :, repetitions homologous and 2347, 2545 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             homologous and 673 and 856"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      homologous and 1162, 1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repetitions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repetitions
                                                                                                                                               or.
```

Ċ,

ç

899

7

```
PRINCE NO NEW YORK NO NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Вp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ51556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 237; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ51556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1576
                                                                              repeat_unit
                                                                                                                                                                                               repeat_unit
                                                                                                                                                                                                                                                                                                                     repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antibodies;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ51556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             دسم
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ggaaaagaa 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ggaaaataa
|||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aatggtgaatacacagcagacttagaagatggcggatacactatcaacatcaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         encoding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunoglobulin; binding; immobilisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             magnus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       249
                                                               1822..1938
/*tag= f
                                                                                                                                                                                                 1045..1158
                                                                                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                       949..1044
                                                                                                                                                                                                                                                                                                                                                                                                                      574..672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product= Protein 490..573
                                           /note=
                                                                                                                                                            /note=
                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                /note=
                                                                                                                                                                                                                                                                                                                                                                                 /note=
                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                    "Repeat units are not adjacent, of this sequence are not 100% begin at nucleotide positions (
                                                                                            "Repeat units are not adjacent, of this sequence are not 100%; begin at nucleotide positions and 1705"
                                                                                                                                                                                                                                                                                                                                      "Repeat units are not adjacent, repetitions
  of this sequence are not 100% homologous an
   begin at nucleotide position 757"
  "Repeat units are not of this sequence are begin at nucleotide p
                                                                                                                                                                                                                                                                            "Repeat units
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pharmaceutical;
                                                                                                                                                                                 Ø
                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                     "Repeat units are not adjacent, of this sequence are not 100% begin at nucleotide positions
                                                                                                                                                                                                                                                                                                                                                                                                        ဂ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲
                                                                                                                                                                                                                    1597"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 1.10); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 229.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŗ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1e-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
e not 100% positions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    light chains;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                       homologous an 1162, 1375
  homologous and 2347 and 2545"
                                                                                                                                                                                                                                                                                                                                                                                                                                         homologous and 673 and 856"
                                                                                                                   homologous
1261, 1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repetitions
                                                                                                                                                        repetitions
                                   repetitions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
```

```
Ş
                        DЬ
                                            δÃ
                                                                    Вb
                                                                                          δÃ
                                                                                                                  망
                                                                                                                                        Qy
                                                                                                                                                               Вþ
                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                   FT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                1576
                                                                                                                   1636
                                                                                                                                                                                                                                                                                                                                                                    Immunoglobulin binding of pharmaceuticals and columns, in diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09322438-A.
                                                                     1696
                                                                                                                                                                                                                                                                                                   Antibodies e.g. on
                                                                                                                                                                                                                                                                                                                                               Disclosure; Figure 1; 29pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Atkinson
                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                           Protein
                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PUBL-) PUBLIC HEALTH LAB SERVICE BOARD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-MAY-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_unit
                                                                                                                                                                                                                                                                                                                Purified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_unit
 241
                                               181
                                                                                            121
                                                                                                                                          61
                                                                                                                                                                                                           Local Similarity
nes 237; Conser
                                                                                                                                                             ggaaaataa
                                aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaattttgct
                                                                               ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                                                                                                                 gttacaatcaaagttaacttaatctttgcagatggaaaaacacaaacagcagaattcaaa
                                                                                                                             gttacaatcaaagttaactttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                   ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta
                      aatggtgaatacacagcagacttagaagatggcggatacactatcaacatcaaaatttgct
                                                                                                                                                                                                                                                                                                                          L forms a complex with
                                                                                                                                                                                                                                                                   3279
                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,
                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Duggleby
                                                                                                                                                                                                                                                                 BP; 1505 A; 480 C; 626 G; 668 T; 0 other;
 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92GB-0009804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93WO-GB00949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1939..2007
/*tag= g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Repeat units are not adjacent, repetition of this sequence are not 100% homologous begin at nucleotide positions 2479, 2665 and 2851"
                                                                                                                                                                                                                                                                                                               can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2914..2934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2095..2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                       in the production of pharmaceuticals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note=
                                                                                                                                                                                                                                                                                                   columns,
                                                                                                                                                                                                                     92.3%;
                                                                                                                                                                                                                                                                                                 mplex with immunoglobulin Kappa light chain.
be used as a reagent for immobilising
olumns, in diagnostic tests and in assays.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CJ,
                                                                                                                                                                                                                                                                                                                                                                                  polypeptide, protein L - use
for immobilising antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Repeat units
of this seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Repeat units are adjacent, repetitions of this sequence are not 100% homologous and begin at nucleotide positions 2935, 2953, 2968, 2986, 3001, 3019 and 3034"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Repeat units are not adjacent, repetitions of this sequence are not 100% homologous and begin at nucleotide positions 2269"
                                                                                                                                                                                                                                                                                                                                                                        tests
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      begin
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murphy
                                                                                                                                                                                                         Score 229.8;
Pred. No. 1.1e
0; Mismatches
                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      t units are not is sequence are at nucleotide p
                                                                                                                                                                                                                                                                                                                                                                        in
                                                                                                                                                                                                                                                                                                                                                                                                                                                      JÞ,
                                                                                                                                                                                                                                                                                                                                                                       assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trowern
                                                                                                                                                                                                          .1e-40;
les 12;
                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     t adjacent, repetitions e not 100% homologous and position 2209"
                                                                                                                                                                                                                                14;
                                                                                                                                                                                                                                                                                                                                                                                           used
                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                Length 3279;
                                                                                                                                                                                                                                                                                                                                                                                  e.g.
                                                                                                                                                                                                                                                                                                                                                                                           for prodn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repetitions
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                          0;
                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                    Į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                        1815
                                                                    1755
                                                                                                                  1695
                                                                                                                                        120
                                                                                                                                                             1635
                                                                                                                                                                                   60
                                            240
                                                                                           180
                                                                                                                                                                                                          0
```

```
Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DЬ
                                            Ωy
                                                                                               Db
                                                                                                                                                                                                    В
                                                                                                                                                                                                                                              δÃ
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRE PRE XX PRE XXX PRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PT XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DЬ
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 215; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes peptostreptococcus protein L Ig light chain binding domain, which is given in the disclosure of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes an immunoglobulin (Ig) light chain binding protein (P1) which has been modified by one or more amino.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 20
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 225 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New modified immunoglobulin light chain binding protein, useful immunoaffinity chromatography, has a dissociation constant of 4 more at pH8 with respect to human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA08433;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA08433 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 49; 56pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ACTI-) ACTINOVA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-SEP-1998;
26-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunoglobulin light chain binding Peptostreptococcus; human immunogloimmunoaffinity chromatography; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200015803-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-JUL-2000
181
                                                                                                                                                 142
                                                 202
                                                                                                  121
                                                                                                                                                                                                                                                      82
                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                         22 aaagaaacaccagaagaaccacaaagaagaagttacaatcaaagttaactta
                                                                                                                                                                                                                                                                                                  9
                    ttagaagatggtggaaaccatatgaacattaaatttgctggaaaa
                                                                                                                         gcagaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagcagac
                                                                                                                                                                                                                      atctttgcagatggaaagatacaaacagcagaattcaaaggaacattttgaagaagcaaca 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000-271441/23.
DB; AAY82544.
ttagaagatggcggatacactatcaacatcaaatttgctggaaaa
                                                                                               gcagaagcttacagatatgcagacttattagcaaaagtaaatggtgaatacacagcagac
                                                                                                                                                                                                  atctttgcagatggaaaaacacaaacagcagaattcaaaggaacatttgaagaagcaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggaaaagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beckingham.
                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98GB-0019998
99GB-0009578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-GB03048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        strain 3316 protein L domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human immunoglobulin kap
natography; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                      95.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Roberts
                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΒP
                                                                                                                                                                                                                                                                                                                                                                                               Score 209; DB 21;
Pred. No. 2.4e-36;
0; Mismatches 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41 G; 40 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  kappa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               և; protein L;
chain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C4 DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 225;
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
225
                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or more amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               seful in of 400 n
                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                 201
                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŊΜ
                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or
P
```

0,

A,

```
RESULT 10
AAA08432
 밁
                     8
                                               В
                                                                    δõ
                                                                                               망
                                                                                                                   δÃ
                                                                                                                                             В
                                                                                                                                                                  δÃ
                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                         The present invention describes an immunoglobulin (Ig) light chain binding protein (PI) which has been modified by one or more amino acid substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                         New modified immunoglobulin light chain binding protein, useful in immunoaffinity chromatography, has a dissociation constant of 400 more at pH8 with respect to human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-SEP-1998;
26-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200015803-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunoglobulin light chain binding protein; PpL; prot Peptostreptococcus; human immunoglobulin kappa chain; immunoaffinity chromatography; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA08432 standard; DNA;
                                                                                                                                                                                                                                                             Sequence 222 BP;
                                                                                                                                                                                                                                                                                   Peptostreptococcus protein L Ig light chain binding domain, given in the disclosure of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ACTI-) ACTINOVA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA08432;
 181
                                                121
                                                                        142
                        202
                                                                                                                                                                                              Local Similarity 95.0 hes 211; Conservative
                                                                                               61
                                                                                                                       82
                                                                                                                                                                     22
                                                                                                                                                          ttagaagatggtggaaaccatatgaacattaaatttgctgga
                                                           gcagaagcttacagatatgcagacttattagcaaaaggtaaatggcgaatatacagcagac
                                                                                                        atctttgcagatggaaagatacaaacagcagaattcaaaggaacattttgaagaagcaaca 141
                                                                                                                                             aaagaaacaccagaacccagaagaaccaaaagaagaagttacaatcaaagttaactta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MG,
ttagaagatggtggaaacacaatcaacattaaatttgctgga
                                              gcaaaagcttatgcttatgcaaacttattagcaaaagaaaatggcgaatatacagcagac 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000-271441/23.
DB; AAY82543.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beckingham
                                                                                                                                                                                                                                                                                                                                                                                      Page 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98GB-0019998
99GB-0009578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-GB03048
                                                                                                                                                                                                                                                            105 A; 35 C; 40 G; 42 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                         82.1%;
95.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JA,
                                                                                                                                                                                                                                                                                                                                                                                   56pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Roberts
                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                         Score 204.4; DB 2
Pred. No. 2.3e-35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein L domain
                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                      DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C3
 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein L;
                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA sequence
                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                      222;
                                                                                                                                                                                              0,;
                                                                                                                                                                                                                                                                                                 which is
                                                                                                                                                                                              Gaps
                                                                                                                                             60
                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                         Ŋ
                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                         or
C
                                                                                                                                                                                              0
```

RESULT 11 AAA08431

```
RESULT
AAQ50452
                                                                                                                                                                                                                                                                                                                 밁
                                                                               Š
                                                                                                        Вþ
                                                                                                                            QY
                                                                                                                                                      B
                                                                                                                                                                          δÃ
                                                                                                                                                                                                     В
                                                                                                                                                                                                                          QY
                                                                                                                                                                                                                                                                Best
                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                      The present invention describes an immunoglobulin (Ig) light chain binding protein (Pl) which has been do iffed by one or more amino acid substitutions such that the dissociation constant (Kd) of the protein with respect to human Ig kappa-chain is 400 nM or more at pH8. Pl is useful in immunoaffinity chromatography. The present sequence encodes a Peptostreptococcus protein L Ig light chain binding domain, which is given in the disclosure of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         New modified immunoglobulin light chain binding protein, useful in immunoaffinity chromatography, has a dissociation constant of 400 nM more at pH8 with respect to human immunoglobulin kappa-chain -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gore
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-1998;
26-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200015803-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA08431 standard; DNA; 213
 AAQ50452
                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ACTI-) ACTINOVA LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptostreptococcus; human immunoglobulin immunoaffinity chromatography; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Immunoglobulin light
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptostreptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUL-2000
                                                           183
                                                                                                         123
                                                                                 213
                                                                                                                              153
                                                                                                                                                       63
                                                                                                                                                                              93
                                                                                                                                                                                                                            \frac{\omega}{\omega}
                                                                                                                                                                                                                                                    Local Similarity
nes 199; Conserv
                         12
                                                                                                                                                                                                      ω
                                                                                                                                                                tggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagcagcagcagctta
                                                                                                                                                                                                                agaaacaccagaagaaccaaaagaagttacaatcaaagttaaacttaatctttgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               œ,
                                                                                                      tgcttatgcagacttattagcaaaagaaaatggcgaatatacagcagacttagaagatgg
                                                                                                                    cagatatgcagacttattagcaaaagtaaatggcgaatatacagcagacttagaagatgg
                                                                       tggaaaccatatgaacattaaatttgctgga
                                                                                                                                                                                                     agaaaaaaccagaagaaccaaaagaagaagttacaatcaaagttaacttaatctttgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000-271441/23
)B; AAY82542.
                                                         tggaaacacaatcaacattaaatttgctgga
                                                                                                                                                      tggaaagacacaaacagcagaattcaaaaggaacatttgaagaagcaacagcaaaagctta
                                                                                                                                                                                                                                                                                                                 213
standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 46-47; 56pp; English.
                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98GB-0019998
99GB-0009578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-GB03048
                                                                                                                                                                                                                                                                                                                 100 A; 32 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                strain
 DNA;
                                                                                                                                                                                                                                                                77.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JA,
  921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3316 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Roberts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     binding
  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                    Score 191.8;
Pred. No. 1.2e
0; Mismatches
                                                                                                                                                                                                                                                                                                                 40 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein;
                                                                                                                                                                                                                                                                                                                 41 T; 0 other;
                                                                                243
                                                           213
                                                                                                                                                                                                                                                    1.2e-32;
ches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              L domain C2 DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          kappa
                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PpL;
                                                                                                                                                                                                                                                                            21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein
                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                           Length 213;
                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                   Gaps
                                                                                                         182
                                                                                                                              212
                                                                                                                                                       122
                                                                                                                                                                             152
                                                                                                                                                                                                      62
                                                                                                                                                                                                                            92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
```

16-MAY-1994

(first entry)

```
RESULT
AAC84644
ID AAC
XX
AC AAC
                                                                                              밁
                                                                                                                     Qγ
                                                                                                                                                  밁
                                                                                                                                                                         δÃ
                                                                                                                                                                                                      Db
                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PT
Tq
                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  separation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The protein encoded by the sequence (Protein L) is capable binding to immunoglobulin G light chains. It is useful for separating (purifying) and identifying immunoglobulin and removing immunoglobulin molecules from serum. Hybrid prot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; Page 37; 71pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New protein L binding light chains of all immunoglobulin classes - for binding purifying and identifying immunoglobulin, also related DNA, vectors and host cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E. coli LE392/pHDL, DSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence encoding
  AAC84644;
                            AAC84644 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 921 BP; 435 A; 128 C; 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                  immunoglobulin sfrom other species. They are highly soluble and retain their binding activity at high temperatures over a pH range of 3-10. They can be immobilised without loss of activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1993-368722/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HIGH-) HIGHTECH RECEPTOR AB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB; AAR42993.
                                                                                                                                                                                                                                                           707
                                                                                              887
                                                                                                                      242
                                                                                                                                                  827
                                                                                                                                                                            182
                                                                                                                                                                                                      767
                                                                                                                                                                                                                                122
                                                                                                                                                                                                                                                                                                               653 taaatattaaatttgctggaaaagaaa'----aaacaccagaagaaccaaaagaagaag
                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                          ν
                                                                                             gtaagaaa 894
                                                                                                            gaaaataa 249
                                                                                                                                               atggtaaatatacagcagacttagaagatggtggatacactattaatattagatttgcag
                                                                                                                                                               atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                gaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaa
                                                                                                                                                                                                                                                                       ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag
                                                                                                                                                                                                                                                                                                                           tgaacattaaatttgctggaaaaga,aacaccagaaacaccagaagaaccaaaagaagaag
                                                                                                                                                                                                      gaacatttgcagaagcaacagcagaagcatacagatacgctgacttattagcaaaagaaa
                                                                                                                                                                                                                                                         ttactattaaagcaaacttaatctatgcagatggaaaaactcaaacagcagagttcaaag
                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sjoebring
                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92SE-0001331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93WO-SE00375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              light chain; binding; identification; purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunoglobulin light
                             DNA; 1305 BP
                                                                                                                                                                                                                                                                                                                                                                                72.8%;
86.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7054
                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                              181.2; DB 1
No. 2.6e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                     G; 186 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chain binding
                                                                                                                                                                                                                                                                                                                                                                                              DB 14; Length
                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            capable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of
                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           binding,
                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                706
                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                              121
                                                                                                                                                                            241
                                                                                                                                                                                                      826
                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                           766
```

Qy

62 ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaaattcaaag 121

ttactattaaagcaaacttaatctatgcagatggaaaaactcaaacagcagagttcaaag

--aaacaccagaagaaccaaaagaagaag

밁

718

Ωy

Query Match Best Local Similarity

72.8%;

Score 181.2; DB 2 Pred. No. 2:7e-30; Mismatches

22;

6,

Gaps

61 717

Sequence 1305 BP; 495 A; 282 C; 293 G; 235 T; 0 other;

밁

```
purification in industrial processes, for production of protein f for effluent treatment, in combination with detergents in cleanin applications, and in leather manufacturing processes. The present sequence represents a DNA encoding a Proti-CBDcex peptide, used for construction of CBD-protein-L constructs for expression in transg
                                                                                                                                                                                                         protein isolated by this method is useful commercially in the food industry, for the hydrolysis of high molecular weight protein, in the manufacture of alcoholic beverages, for the hydrolysis of whey lactose, in the production of the artificial sweetener aspartame, in the reduction of the cooked flavour of milk, in the production of animal feed enzymes, in the sterilization and oxidation of plastics and rubbers, for the production of heparin and heparan sulfate oligosaccharides, for
                                                                                                                                                                                                                                                                                                                                                                                               (b) homogenizing the plant, plant derived tissue or cultured plant cells such that FP is brought into contact with a plant derived cellulosic matter (CM) to effect affinity binding of FP via CBP to CM and forming a FP-CM complex; and (c) isolating the FP-CM complex. The recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a process of expressing a recombinant prote a plant and isolating the recombinant protein from the plant. The me comprises: (a) providing a plant, a plant derived tissue or cultured
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Expressing and isolating recombinant protein from plant e.g for use in food industry, involves homogenizing a plant expressing fusion protein including recombinant protein and cellulose binding peptide being fused to it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-080683/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shani Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200077175-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein fiber; effluent treatment;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         artificial sweetener; milk; animal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Recombinant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein and a cellulose binding peptide (CBP) being fused to it, FP being compartmentalized so as to be sequestered from the cell walls;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         plant cells expressing a fusion protein (FP) including a recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page 58-59; 64pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (FRIE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CBDT-) CBD TECHNOLOGIES LTD (YISS) YISSUM RES & DEV CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FRIEDMAN M M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shoseyov O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fusion protein; cellulose binding
y; alcoholic beverage; hydrolysis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US13434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0329234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        detergent; leather; cell signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      feed enzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 peptide; CBP;
whey lactose;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         heparan sulfate
                                                                                                                                                             cleaning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cellulose;
aspartame;
                                                                                                                                                                                        fibers,
```

Q Вþ Ş B õ

망

·Οy

20

밁 QΥ QΥ

밁 δÃ

DB 22;

Length

1;

```
RESULT 1
AAF24725
                                                                                                             such as in the food processing industry, e.g. glucoamylases and glucose isomerases are used for converting starch to high fructose corn syrup, proteinases for the hydrolysis of high molecular weight proteins and in manufacturing leather or alcoholic beverages, pectinesterases for pectin hydrolysis in food industry, lipases for cleaving ester linkage in triglycerides, and for effluent treatment. The recombinant proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Expressing and isolating recombinant protein in a plant, useful for producing large quantities of recombinant proteins, by expressing a fusion protein including a cellulose binding peptide fused to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein production; protein L; CBD cex |
                                                                                                                                                                                                                                                                           quantities of the recombinant proteins and protein products in a simple and cost-effective manner. Recombinant proteins may be used commercially
                                                                                                                                                                                                                                                                                                                                 fusion protein including the recombinant protein and a cellulose binding peptide fused to it, where the fusion protein is compartmentalised and sequestered within plant cells, plant derived tissue or cultured plant cells. The method is useful for obtaining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF24725;
                                                                                      may
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example; Page 72-73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        recombinant protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shani-Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CBDT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200077174-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleotide sequence of protein L and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF24725 standard; DNA; 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The specification describes a method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-JUN-2000; 2000WO-IL00330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                                                                                    recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14
y further be used to produce protein antibiotics, which can healing processes, and to produce animal feed enzymes. The quence represents a protein L and CBD cax fusion protein, wheel to produce the fusion proteins of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001-112219/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gtaagaaa 905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          atggtaaatatacagcagacttagaagatggtggatacactattaatattagatttgcag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gaacatttgcagaagcaacagcagaagcatacagatacgctgacttattagcaaaagaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CBD TECHNOLOGIES LTD.
YISSUM RES DEV CO HEBREW UNIV JERUSALEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shoseyov 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 tion describes a method for expressing and protein in a plant. The method comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0329234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cex protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  food processing; protein antibiotic; feed enzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CBD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cex fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                              isolating expressing
                                                                                      be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
```

SXCCCCCCCCCCCCCCXSXTTTTTXXXXTXTXX

Sequence 1305 BP; 495

A 282

Ċ

293. G;

235 T;

0 other;

Sequence 1308 BP;

577

A; 204

c;

252 G;

275

Η. Ö other;

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                                             PXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ50453
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                       protein L (AAR42993) is capable of binding to immunoglobulin G light chains. It is useful for binding, separating (purifying) and identifying immunoglobulin and for removing immunoglobulin molecules from serum. This is the coding sequence of one hybrid protein of the L protein. The hybrid proteins can bind all human immunoglobulin classes and many immunoglobulins from other species. They are highly soluble and reteain their binding activity at high temperatures over a pH range of 3-10. They can be immobilised
                                                                                                                                                                                                     New protein I binding light chains of all immunoglobulin classes - for binding purifying and identifying immunoglobulin, also related DNA, vectors and host cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09322342-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ50453 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E. coli L392/pHDLG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  separation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence encoding immunoglobulin light chain binding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ50453
                          temperatures over a pH range of without loss of activity.
                                                                                                                                                                            Claim 6;
                                                                                                                                                                                                                                                                 P-PSDB;
                                                                                                                                                                                                                                                                                                          Bjoerck L,
                                                                                                                                                                                                                                                                                                                                                                    28-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                              11-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Immunoglobulin;
                                                                                                                                                                                                                                                                                                                                       (HIGH-) HIGHTECH RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                 28-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         898 gtaagaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           thes 214;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             664 taaatattaaatttgctggaaaagaaa----aaacaccagaagaaccaaaagaagaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1:5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gaacatttgaagaagcaacagcagaagcttaccagatatgcagacttattagcaaaagtaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atggtaaatatacagcagacttagaagatggtggatacactattaatattagatttgcag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ttactattaaagcaaacttaatctatgcagatggaaaaactcaaacagcagagttcaaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gaacatttgcagaagcaacagcagaagcatacagatacgctgacttattagcaaaagaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                 AAR42994.
                                                                                                                                                                         Page 39-40;
                                                                                                                                                                                                                                                                                                          Sjoebring
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              905
                                                                                                                                                                                                                                                                                                                                                                    92SE-0001331
                                                                                                                                                                                                                                                                                                                                                                                                93WO-SE00375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  light chain; binding; identification; purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DSM 7055
                                                                                                                                                                     .71pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72.8%;
86.3%;
                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 181.2; DB 2
Pred. No. 2.7e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      777
```

дb Qy В δÃ Ъ Qy В γQ В Search completed: June 19, 2002, 18:47:39 Job time: 4120 sec Query Match 72.8 Best Local Similarity 86.3 Matches 214; Conservative 887 gtaagaaa 894 242 gaaaataa 249 827 atggtaaatatacagcagacttagaagatggtggatacactattaatattagatttgcag 886 182 atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg 241 72.8%; Score 181.2; DB.14; Length 1308; 86.3%; Pred. No. 2.7e-30; ative 0; Mismatches .28; Indels 6; .6; Gaps

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq.length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
Query
Score Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1797656 seqs, 10463268293 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           June 19, 2002, 16:35:23 ; Search time 1834.72 Seconds (without alignments) , 2840.056 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 atgaacattaaatttgctgg.....ttaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-808-212A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gb_ba:*
gb_htg:*
gb_in:*
gb_om:*
gb_ov:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gb_pat:*
gb_ph:*
gb_pl:*
                                                                                                                                                           em_htg_hum:*
em_htg_inv:*
em_htg_other:*
em_htgo_inv:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gb_pr:*
                                                                                                                                                                                                                                                                                               em_ph:*
em_pl:*
                                                                                                                                                                                                                               em_un:*
em_vi:*
                                                                                                                                                                                                                                                                                                                                                em_or:*
                                                                                                                                                                                                                                                                                                                                                                                                                  em_in:
                                                                                                                                                                                                                                                              em_sts:*
                                                                                                                                                                                                                                                                                                                                em_pat:
                                                                                                                                                                                                                                                                                                                                                                                 em_om:
                                                                                                                                                                                                                                                                                                                                                                                                    em_mu:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_ba:
                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3595312
```

O

a ဂ ဂ

	229 8 229 8 181 2 181 2 181 2 1181 2 1199 8 109 8 109 8 109 8 107 107 107 107 107 107 107 107 107 107 107	31.
	292 292 292 292 293 293 293 293 293 293	
2082 63 168 5019 6567 6646		87 25
@ N @ N N M N	\u000000000000000000000000000000000000	→ 0 0
AL663060 PFPPFK51 E08995 AC106120 AC090646 AC095476 AC099884	7.57.27 7.57 7.5	⊣
,		

ALIGNMENTS

	BASE COUNT 402 a	source	FEATURES	JOURNAL Patent: US	uses	TITLE Immunoglob	Duggleby, C.J.	AUTHORS Trowern, A.	REFERENCE 1 (bases	Unclassified.	ORGANISM Unknown.	SOURCE Unknown.	KEYWORDS .	VERSION AR137037.1	ACCESSION AR137037	DEFINITION Sequence	LOCUS AR137037	AR137037 .	VESOFT. I
	/organism="unknown"	1876	Location/Qualifiers	Patent: US 6162903-A 3 19-DEC-2000;		Immunoglobulin binding proteins derived from L protein and their).J.	Trowern, A.R., Atkinson, A., Murphy, J.P., Laurence, O.S. and	(bases 1 to 876)	Led.				AR137037.1 GI:14478287		Sequence 3 from patent US 6162903.	-		
		•	lifiers	3 19-DEC-200		y proteins d		n,A., Murphy						87		t US 6162903	876 bp		
	171 +			0;		erived		,J.P.,	•							•	DNA		
٠.						from L prot		Laurence, O.									linear		
						ein a		S. an									PAT 16-JUN-2001		
						nd t		ā									16-0		
						hei											UN-		
																	2001		

IJ

Description

```
οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
ACCESSION
                                          В
                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db . ,
                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Вр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                             Matches
                                                                                                         Query Match
Best Local .
                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                      GGAAAATAA 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct.240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggaacatttgaagaagcaacagcagaágcttacagatatgcagacttattagcaaaagta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAAACAGCAGAATTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gttacaatcaaagttaatctttgcagatggaaagatacaaacagcagaattcaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGTA
                                                                                           al Similarity
237; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A75725. 876 bp. Sequence 3 from Patent W09322439. A75725
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 876)
Trowern, A.R. and Atkinson, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptostreptococcus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptostreptococcus sp. 1018. Peptostreptococcus sp. 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A75725.1 GI:6065696
                                                                                                                                                                                                                                                                                                                                                                                              HEALTH LAB SERVICE BOARD (GB);
                                                                                                                                                                                                                                                                                                                                                                                                           Patent: WO 9322439-A 3 11-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptostreptococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                    MMUNOGLOBULIN, BINDING PROTEINS DERIVED FROM L'PROTEIN AND THEIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                      401
                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                     TPETPEEPKEEVTIKVNLIFADGKTQTAEFKGTFEEATAEAYRYADLLAKVNGEYTAD
LEDGGYTINIKFAGK",
141 c 163 g 171 t
                                                                                                                                                                                                                /translation="metpepeeevtikanlifadgstqnaefkgtfakaysdayad
Alkkongeytydvadkgltlnikfagkkekpeepkeevtikvnlifadgktqtaefkg
Tfeeatakayayadllakengeytadledggntinikfagkefpetpeepkeeytikv
                                                                                                                                                                                                      NLIFADGKIQTAEEKGTFEEATAKAYAYANLLAKENGEYTADLEDGGNTINIKFAGKE
                                                                                                                                                                                                                                                                                                                                               /organism="Peptostreptococcus sp. 1018"
/strain="1018"
                                                                                                                                                                                                                                                         /protein_id="CAB58546.1"
/db_xref="GI:6065697"
                                                                                                                                                                                                                                                                                 transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                        note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                 db_xref="taxon:106273"
                                                                                                                                                                                                                                                                                               'codon_start=1
                                                                                                     92.5%;
95.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.9%;
                                                                                           0;
                                                                                                     Score 230.4; DB 6
Pred. No. 5.3e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacillus/Clostridium group; Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 231.4; DB 6
Pred. No. 3.5e-33;
                                                                                          Mismatches
                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                    171
                                                                                                                                                                                                                                                                                                                                                                                               TROWERN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                DB 6;
                                                                                          11;
                                                                                                                                                                                                                                                                                                                                                                                               ANGUS ROBERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . linear
                                                                                                                Length 876;
                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT
                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-OCT-1999
                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĎЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEPPROTEIN
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
repeat_unit
                                                 repeat_unit
                                                                                                                repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                              sig_peptide
                                                                                                                                         mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ggaaaata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L04466
```

^

/rpt_type=direct 949. .1161

/note="2 B-REPEATS B1
/function="unknown"

(574-672) B2

(757-855); B-repeats"

/note="3 A-repeats A1. (856-948); A-repeats" /function="unknown"

(490-573); A2

(673-756);

A3

/rpt_type=direct

```
688 GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACACAAACAGCAGAATTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAAATA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aatggcgaatatacagcagacttagaagatggtggaaaccatatgaaccattaaatttgct 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99aacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleotide sequence of the gene for pepto DNA Seq. 4 (4), 259-265 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Finegoldia magna
Bacteria; Firmicutes; Bacillus/Clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L04466.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptostreptococcus magnus (strain 3316) DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptostreptococcus magnus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PEPPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Finegoldia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
/product="protein L" 490. .573
                                                                                                                                           KEAAIKELKEAGITAEYLFNLINKAKTVEGVESLKNEII
                                                                                                                                                                                                        EÄG ITSDLYFSLI NKAKTVEGVEALKNE I LKAHAGEETPELKDGYATYEEAEAAAKEA
LKNDDVNNAYELVQGADGRYYYVLK I EVADEEEPGEDTPEVQEGYATYEEAEAAAKEA
                                                                                                                                                                                                                                                                             EDGGNTINIKFAGKETPETPEEPKEEVTIKVNLIFADGKTQTAEFKGTFEEATAEAYR
                                                                                                                                                                                                                                                                                                   GTFAKAVSDAYAYADALKKDNGEYTVDVADKGLTLNIKFAGKKEKPEEPKEEVTIKVN
LIFADGKTQTAEFKGTFEEATAKAYAYADLLAKENGEYTADLEDGGNTINIKFAGKET
PETPEEPKEEVTIKVNLIFADGKIQTAEFKGTFEEATAKAYAYANLLAKENGEYTADL
                                                                                                                                                                                                                                                                                                                                                                          KRDIDSATTIDAINDIVARADVMERKLSEKETPEPEEEVTIKANLIFADGSTQNAEFK
                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="mKINKKLLMAALAGAIVVGGGANAYAAEEDNTDNNLSMDEISDA
YFDYHGDVSDSVDFVEEEIDEALAKALAEAKETAKKHIDSLNHLSETAKKLAKNDIDS
ATTINAINDIVARADVMERKTAEKEEAEKLAAAKETAKKHIDELKHLADKTKELAKRD
                                                                       LAAAALSTAAGAYVSLKKRK"
                                                                                                                   LKNAKEDAIKELKEAGITSDIYFDAINKAKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="protein L"
/protein_id="AAA67503.1"
/db_xref="GI:150674"
                                                                                                                                                                                                                                                                                                                                                                                              IDSATTINAINDIVARADVMERKTAEKEEAEKLAAAKETAKKHIDELKHLADKTKELA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:1260"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Finegoldia
/strain="3316"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:150673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein L
                                                                                                                                                                                                                                                         TINIKFAGKEQPGENPGITIDEWLLKNAKEEAIKELK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            peptostreptococcal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    group;
                                                                                                                                      KAHAEKPGENPGITIDEWL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BCT
cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           747
```

```
REFERENCE
AUTHORS
TITLE
                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                         DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DЪ
                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                           KEYWORDS
                                                                                                                            VERSION
                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                            1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1576
                                                                                                                                                                                                                                                     1816
                                                                                                                                                                                                                                                                                                                                                                              1696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein_bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein_bind
                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hes 237;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                           gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                aatggcgaatatacagcagacttagaagatggtggaaacccatatgaacattaaatttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAACAGCAGAATTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAAAGAA 1824
                                                                                                                                                                                                                                                                             ggaaaataa 249
                                                                                                                                                                                                                                                                                                                AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT 1815
                                                                                                                                                                                                                                                                                                                                                                              GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGTA
                                                                                                                                         3279 bp
Sequence 1 from Patent WO9322439
A75723
                                                          Peptostreptococcus sp. Peptostreptococcus sp. Bacteria; Firmicutes; F
                Trowern, A.R. and Atkinson, A.
                                                                                                                          A75723.1 GI:6065694
 IMMUNOGLOBULIN BINDING
                             Peptostreptococcus
1 (bases 1 to 3279)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="2 E-repeats El
putative; E-repeats"
/function="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_unit-2914. .2934 3052. .3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="putative; M-region"
/bound_moiety="cell anchor region"
/function="attach protein to cell surface"
477 c 623 g 663 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ∕evidence≕experimental
1822. .2034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /bound_moiety="immunoglobulin kappa light chain"
/function="possible virulence mechanism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="4 C-repeats Cl (949-1161) C2 (1162-1374) C3 (1375-1596) C4(1597-1. . .; C-repeats" function="binds immunoglobulin kappa light chains"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_type=tandem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="8 R-repeats; putative; R-REPEATS"
/function="charged cell anchor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'function="binds to serum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="4 D-repeats D1 (1822-2034) D2 (2347-2544) D3 (2545-2730) D4(2731-2913); D-repeats"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="C-repeats"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92.3%;
95.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                          Bacillus/Clostridium group; Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 229.8; DB 1; Pred. No. 5.2e-33;
                                                                              1018.
 PROTEINS DERIVED FROM L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (2035-2208) E2 (2209-2346);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      albumin"
                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
 PROTEIN AND THEIR
                                                                                                                                                                        PAT 22-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                            1755
                                                                                                                                                                                                                                                                                                                                                                                                                                          1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
```

```
RESULT
A75727
                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                   LOCUS
DEFINITION
                                                                                                                    В
                                                                                                                                                  Ş
                                                                                                                                                                                    망
                                                                                                                                                                                                                  Qy
                                                                                                                                                                                                                                                       DЪ
                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                            밁
 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 237;
                                                                                                                    1816
                                                                                                                                                                                      1756
                                                                                                                                                                                                                                                                                                                         1636
                                                                                                                                                                                                                                                                                                                                                                                            1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_signal
mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                         1696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                          ATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT
                                                                                                                                        ggaaaataa 249.
                                                                                                                                                                                                                    aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                                                                                                                                                                                                                                         GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAAACAGCAGAATTCAAA
                                                                                                                                                                                                                                                                                                                                       gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                                                                          GGAAAAGAA 1824
A75727
Sequence
A75727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö
                 1 from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="mature 208. .279 280. .3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEBABKLAAAKETAKKHIDELKHLADKTKELAKRDIDSATTINAINDIVARADVMERK
TAEKEEBEKLAAAKETAKKHIDELKHLADKTKELAKRDIDSATTIDAINDIVARADVM
TAEKEEBEKLAAAKETAKKHIDELKHLADKTKELAKRDIDSATIDAIDSATAYADALKKUNGE
ERKKSEKETPEPEEBYTIKANLIFADGSTONABEKGGTEAKAVSDAYAYADALKKUNGE
YTVDVADKGLTLNIKFAGKKEKPEEPKEEVTIKVNLIFADGKTQTAEFKGTFEEATAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IQTAEFKGTFEEATAKAYAYANLLAKENGEYTADLEDGGNTINIKFAGKETPETPEEP
KEEVTIKVNLIFADGKTQTAEFKGTFEEATAEAYRYADLLAKVNGEYTADLEDGGYTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AALAGATVVGGGANAYAAEEDNTDNNLSMDETSDAYFDYHGDVSDSVDPVEEETDEAL
AKALAEAKETAKKHIDSLNHLSETAKKLAKNDIDSATTINAINDIVARADVMERKTAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="immature prote
/protein_id="CAB58545.1"
/db_xref="GI:6065695"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="mature
480 c 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KKPEDKKPGKTDKDSPNKKKKAKLPKAGSEAEILTLAAAALSTAAGAYVSLKKRK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIKFAGKEQPGENPGITIDEWLLKNAKEEAIKELKEAGITSDLYFSLINKAKTVEGVE
ALKNEILKAHAGEETPELKDGYATYEEAEAAAKEALKNDDVNNAYEIVQGADGRYYYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AYAYADLLAKENGEYTADLEDGGNTINIKFAGKETPETPEEPKEEVTIKVNLIFADGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LK I EDKEDEQPGEEPGENPG IT I DEWLLKNAKEDA I KELKEAG ISSDIYFDA I NKAKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /strain="1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /number=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LK I EVADEEEPGEDTPEVQEGYATYEEAEAAAKEALKEDKVNNAYEVVQGADGRYYYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translation="MLGNEFDLNSIKCKKFKRRRQIPPFIKGSFHCQNNMKINKKLLM/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transl_table=11/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:106273"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Peptostreptococcus sp. 1018"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9322439-A 1 11-NOV-1993;
SERVICE BOARD (GB); TROWERN ANGUS ROBERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.3%;
95.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .3186
               3279 bp
Patent W09322438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 229:8; DB 6
Pred. No. 5.2e-33;
D; Mismatches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GB)
                                 PAT 22-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                    1815
                                                                                                                                                                                                                                                       1755
                                                                                                                                                                                                                                                                                                                         1695
                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.,
```

```
Qy
                                      В
                                                                     Qy
                                                                                                              DЪ
                                                                                                                                             Qγ
                                                                                                                                                                                    В
                                                                                                                                                                                                                       QУ
                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                            Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                              1696
                                                                                                                                                                                    1636
                                                                                                                                                                                                                                                              1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_signal
mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                         181
                                                                                                                                               121
                                                                                                                                                                                                                       19
                                                                                                                                                                                                                                                    ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                              GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAAACACAAACAGCAGAATTCAAA 1695
                                                                                                                                                                                                 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
ggaaaataa
                                    AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT
                                                      aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                        GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGTA
                                                                                                                                                                                                                                                                                                                                     237;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent: WO 9322438-A 1 11-NOV-1993; HEALTH LAB SERVICE BOARD (GB); TROW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 3279)
Trowern, A.R. and Atkinson, A.
PROTEIN L AND PROCESS FOR ITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptostreptococcus sp. 1018
Bacteria Pirmi---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A75727.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1505
                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /evidence=experimental
/product="MATURE PROTE
208. 279
280. 3183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KAKTVEGVESIKNEIIKAHAEKPGENPGITIDEWLLKNAKEDAJIKELKEAGITSDIYF
DAINKAKTIGCVEALKNEITKAHAEKPGENPGTTIDEWLLKNAKEDAJIKELKEAGITSDIYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIKFAGKEQPGENPGITIDEWLLKNAKEEAIKELKEAGITSDLYFSLINKAKTVEGVE
ALKNEILKAHAGEETPELKDGYATYEEAEAAAKEALKNDDVNNAYEIVQGADGRYYYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEEVT IKVNLTFADGKTQTAEFKGTFEEATAEAYRYADLLAKVNGEYTADLEDGGYT I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAEKEEAEKLAAAKETAKKHIDELKHLADKTKELAKRDIDSATTIDAINDIVARADVM
ERKLSEKETPEPEEEVTIKANLIFADGSTQNAEFKGTFAKAVSDAYAYADALKKDNGE
YTVDVADKGLTLNIKFAGKKEKPEEPKEEVTIKVNLIFADGKTQTAEFKGTFEEATAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /translation="MLGNEFDLNSIKCKKFKRRRQIPFFIKGSFHCQNNMKINKKLLMAALAGAIVVGGGANAYAAEEDNTDNNLSMDEISDAYFDYHGDVSDSVDPVEEEIDEALAKALAEAKETAKKHLDSLNHLSETAKKLAKNDIDSATTINAINDIVARADVMERKTAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LKIEVADEEEPGEDTPEVQEGYATYEEAEAAAKEALKEDKVNNAYEVVQGADGRYYYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AYAYADLLAKENGEYTADLEDGGNTINIKFAGKETPETPEEPKEEVTIKVNLIFADGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="IMMATURE PROTEIN
/protein_id="CAB58547.1"
/db_xref="GI:6065699"
                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="MATURE PROTEIN L"
480 c 626 g 668 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QTAEFKGTFEEATAKAYAYANLLAKENGEYTADLEDGGNTINIKFAGKETPETPEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Peptostreptococcus
/strain="1018"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:106273"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Firmicutes; Bacillus/Clostridium
                                                                                                                                                                                                                                                                                                                                                     92.3%;
                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                              Score 229.8; DB 6; Pred. No. 5.2e-33; D; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PREPARATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TROWERN ANGUS ROBERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ľ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LKNAKEDAIKELKEAGISSDIYFDAINKAKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВҮ
                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                Length 3279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1018"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RECOMBINANT DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GB)
                                                                                                                                                                                                                                                                                                                               Ö,
                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                        1755
                                                                                                                                                                                                                                                      1635
                                                                                                                                                                                                                                                                                                                               0,
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                         LOCUS
DEFINITION
                                                                                                                                                                                                RESULT
AR079000
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                             Db
                                                                                                                                                                                                                                                                                                                                                                  Ωy
                                                                                                                                                                                                                                                                                                                                                                                         Ъ
                                                                                                                                                                                                                                                                                                                                                                                                              Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                      Dр
                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ρy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
AR137036
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                 source
                                                                                                                                                                                                                                                1816
                                                                                                                                                                                                                                                                                              1756
                                                                                                                                                                                                                                                                                                                                        1696 GGAACATTTGAAGAAGCAACAGCAGAAGCTTACAGATATGCAGACTTATTAGCAAAAGJA 1755
                                                                                                                                                                                                                                                                                                                                                                                         1636
                                                                                                                                                                                                                                                                                                                                                                                                                                 1816
                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                  61 gttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaa 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   c c
                                                                                                                                                                                                                                               GGAAAAGAA 1824
                                                                                                                                                                                                                                                                                                                                                     ggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagta 180
                                                                                                                                                                                                                                                             ggaaaataa
                                                                                                                                                                                                                                                                                                        aatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgct 240
                                                                                                                                                                                                                                                                                           AATGGTGAATACACAGCAGACTTAGAAGATGGCGGATACACTATCAACATCAAATTTGCT 1815
                                                                                                                                                                                                                                                                                                                                                                                       GTTACAATCAAAGTTAACTTAATCTTTGCAGATGGAAAAACACAAACAGCAGAATTCAAA 1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAAAGAA 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  237;
                                                                                                                                                             Sequence
AR079000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR137036
Sequence 1
AR137036
                                                     Bjorck, L. and Sjobring, U. Protein L and hybrid proteins there Patent: US 5965390-A 2 12-OCT-1999;
                                                                                                                Unknown
                                                                                                   Unclassified
                                                                                                                           Unknown
                                                                                                                                                  AR079000.1
                                                                                                                                                                                    AR079000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 3279)
Trowern, A.R., Atkinson, A., Murphy, J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent: US 6162903-A 1 19-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Duggleby,C.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AR137036.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunoglobulin binding proteins derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unclassified
                                                                                        (bases 1 to 921)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       а
                                                                                                                                                                         N
       /organism="unknown"
128 c 172 g
                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="unknown"
481 c 625 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
1. .3279
                                                                                                                                                                       from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3279 bp
from patent US 6162903
                                                                                                                                                  GI:10005746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92.3%;
95.2%;
                                                                                                                                                                       patent US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 229.8; 1
Pred. No. 5.2e
0; Mismatches
                                                                                                                                                                       921 bp
s 5965390.
                                                                 thereof
         186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .2e-33;
                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Laurence, 0.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3279;
                                                                                                                                                                                  PAT 31-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 16-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                     JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
AR079001
밁
               Qy
                                       ₽
                                                       Qy
                                                                               В
                                                                                                 δÃ
                                                                                                                       망
                                                                                                                                       QΥ
                                                                                                                                                                Вb
                                                                                                                                                                                 Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Вр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q
                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Ma
Best Loc
Matches
                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           827
                                        827
                                                           182
                                                                                                                                                                  653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      653
887
                   242
                                                                                767
                                                                                                     122
                                                                                                                        707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               y Match
rocal Similarity
                                                                                                                                            62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
                                                                                                                                                                                                                                                                                                                                                                                                                                                    æ
                                                                                                                                                              GAACATTTGCAGAAGCAACAGCAGAAGCATACAGATACGCTGACTTATTAGCAAAAGAAA
GTAAGAAA 894
                  gaaaataa
                                                  atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                GAACATTTGCAGAAGCAACAGCAGAAGCATACAGATACGCTGACTTATTAGCAAAAGAAA
                                                                                         gaacatttgaagaagcagcagcagaagcttacagatatgcagacttattagcaaaagtaa 181
                                                                                                                        TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG
                                                                                                                                   ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTAAGAAA 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGTAAATATACAGCAGACTTAGAAGATGGTGGATACACTATTAATATTAGATTTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagcaaaagtaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag
                                        ATGGTAAATATACAGCAGACTTAGAAGATGGTGGATACACTATTAATATTAGATTTGCAG
                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4 from patent US
AR079001
AR079001.1 GI:10005747
                                                                                                                                                                                                                                                                                                  l (bases 1 to 1308)
Bjorck,L. and Sjobring,U.
Protein L and hybrid proteins there
Patent: US 5965390-A 4 12-OCT-1999;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                  Unknown.
                                                                                                                                                                                                                                                                                                                                                       Unclassified
                                                                                                                                                                                                                                                                                                                                                                            Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                               AR079001
                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                   249
                                                                                                                                                                                                                                                                   /organism≖"unknown"
204 c 252 g
                                                                                                                                                                                                                 72.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 181.2; pred. No. 4.9e 0; Mismatches
                                                                                                                                                                                                                Score 181.2; DB 6
Pred. No. 4.5e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                              1308
                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                     308 bp
5965390.
                                                                                                                                                                                                                                                                                                                         thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..2; DB 6;
4.9e-24;
ches 28;
                                                                                                                                                                                                                                                                      275
                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                            DB 6;
                                                                                                                                                                                                         28;
                                                                                                                                                                                                                           Length
                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  921;
                                                                                                                                                                                                                            1308;
                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 31-AUG-2000
                                                                                                                                                                                                        6;
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                706
                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24<u>1</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61,
                                        988
                                                          241
                                                                                826
                                                                                                                       766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۲,
                                                                                                                                                                                                        1;
```

RESULT S50809

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
밁
                         QΥ
                                                          뫄
                                                                                        δÃ
                                                                                                                            밁
                                                                                                                                                        Qy
                                                                                                                                                                                                В
                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                           δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                      242
                                                                                                                                830
                                                                                                                                                                                                770
                                                                                                                                                                                                                                                                716
950
                                                              990
                                                                                               182
                                                                                                                                                             122
                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                               TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG
                                                                                                                                                                                                               GTAAGAAA
                                                                                 atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg
                                                                                                                                                                                                                                                                 TAAATATTAAATTTGCTGGAAAAGAAA - - - - - AAACACCAGAAGAACCAAAAGAAGAAG
                             gaaaataa
                                                              ATGGTAAATATACAGCAGACTTAGAAGATGGTGGATACACTATTAATATTAGATTTGCAG
                                                                                                                                                                                                                                                                                                                                214;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Finegoldia.

1 (bases 1 to 1365)

Kihlberg,B.M., Sjobring,U., Kastern,W. and Bjorck,L.

Protein LG: a hybrid molecule with unique immunoglok
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      domains} (streptococcus, mRNA Recombinant, $50809 $50809.1 GI:261705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S50809 1365 bp mRNA linear protein LG-immunoglobulin binding protein [immunoglobulin binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenBank staff at the National Library of Medicine entry [NCBI gibbsq 120302] from the original journ This sequence comes from Fig. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93094283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     properties
J. Biol. C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Finegoldia magna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Finegoldia magna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                 585
                                                                                                                                                                                                                                                                                                                                Conservative
957
                               249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 988.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /Translation="MKKTAIAIAVALAGFATVAQAAVENKEETPETPETDSEEEVTIK
ANLIFANGSTQTAEFKGTFEKATSEAVAYADTLKKDNGEYTVDVADKGYTLNIKFAGK
EKTPEEDFKEEVTIKANLIYADGKTQTAEFKGTFEEATAEAYRADALKKDNGEYTVDV
ADKGYTLNIKFAGKEKTPEEDFKEEVTIKANLIYADGKTQTAEFKGTFEEATAEAYRYA
DLLAKENGKTTVDVADKGYTLNIKFAGKEKTPEEDFKEEVTIKANLIYADGKTQTAEFK
GTFAEAYRAADLLAKENGKYTADLEDGGYTINIFFAGKKVDEKPEEPMDTYKLI
LNGKTLKGETTTEAVDAATAEKYFKQYANDNGVDGEWTYDDATKTFTVTEKPEVIDAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="recombinant immunoglobulin binding protein; sequence comes from Fig. 2; hybrid construct shows termination codon"
                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Streptococcus sp."
/db_xref="taxon:1306"
219 c 268 g 293 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="protein LG"
/protein_id="AAA03280.1"
/db_xref="GI:261706"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ELTPAVTTYKLVINGKTLKGETTTKAVDAETAEKAFKQYANDNGVDGVWTYDDATKTF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Finegoldia magna"
/db_xref="taxon:1260"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     focus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .>1365
                                                                                                                                                                                                                                                                                                                                             72.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267 (35),
                                                                                                                                                                                                                                                                                                                            Score 181.2; DB 1
Pred. NO. 4.5e-24;
0; Mismatches 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacillus/Clostridium group; Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25583-25588
                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunoglobulin binding
                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    journal
                                                                                                                                                                                                                                                                                                                                                                 1365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    created this nal article.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BCT 02-MAR-2001
                                                                                                                                                                                                                                                                                                                                6;
                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                               61
                                                                                             241
                                                                                                                                                                                                                                                                769
                                                                949
                                                                                                                                                                                                829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
```

```
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                       mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                   sig_peptide
                                                                            repeat_region repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptostreptococcus magnus M86697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Structure of peptostreptococcal protein L and identification of repeated immunoglobulin light chain-binding domain J. Biol. Chem. 267, 12820-12825 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 2657)

Kastern, W., Holst, E., Nielsen, E., Sjobring, U. and Bjorck, L. Protein L, a bacterial immunoglobulin-binding protein and possible virulence determinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Finegoldia magna
Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptostreptococcus magnus (strain 312) DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3joerck,L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 2657)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
1. .2657
                                                                                                 /rpt_type=direct;
/evidence=experimental
591 1685
                                                                                                                                                                                                                                                                   /product="protein 591. .818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Finegoldia
/strain="312"
                                                                                                                                                                                                                                                                                                                                                                                                        KEKAALPKAGSEAEILTLAAASLSSVAGAFISLKKRK"
                                                                                                                                                                                                                                                                                                                                                                                                                           PGNEEKPGNEQKPGNEQKPGNEQKPGNEQKPGNEQKPDQPSKPEKEENGKGGVDSPKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ETPETDSEEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKKDNGEYTVDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="protein L"
/protein_id="AAA25612.1"
/db_xref="GI:150672"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:1260"
                                                                                                                                                                                                                                                                                                                                                                                                                                               YVLSPVEAETPEKPVEPSEPSTPDVPSNPSNPSTPDVPSTPDVPSNPSTPEVPSNPST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTFEEATAEAYRYADLLAKENGKYTVDVADKGYTLNIKFAGKEKTPEEPKEEVTIKAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DALKKDNGEYTVDVADKGYTLNIKFAGKEKTPEEPKEEVTIKANLIYADGKTQTAEFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note-"putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'gene≕"I
                                                                                                                                                                                                                                                                                                                                                              /gene="protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              )EKPEEKEQVTIKENIYFEDGTVQTATFKGTFAEATAEAYRYADLLSKEHGKYTADLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEVKDGSENPMAKYPDFDDEASTRFETENNEFEEKKVVSDNFFDQSEHPFVENKEETP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      function="Binds kappa chain of immunoglobulins."
                                                                                                                                                        /function="one of five kappa-binding domains" /rpt_family="B family in protein L gene"
                                                                                                                                                                                                                                             /gene="protein L"
                                                                                                                                                                                                                                                                                                       /evidence=experimental
                                                                                                                                                                                                                                                                                                                            function="binds kappa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    translation="MAALAGAIVVTGGVGSYAADEPIDLEKLEEKRDKENVGNLPKFD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  codon_start=1
/citation=[2]
/function="one of the five kappa-binding domains"
/rpt_family="B family in protein L gene"
                                                             /gene="protein L"
                                                                                                                                                                                                                            citation=
                                                                                                                                                                                               citation=[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sjoebring, U. and Kastern, W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLNIKFAGKEKTPEEPKEEVTIKANLIYADGKTQTAEFKGTFEEATAEAYRYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1217-1222 (1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacillus/Clostridium group; Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ργοτείn L gene, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               magna"
                                                                                                                                                                                                                                                                                                                                chain
                                                                                                                                                                                                                                                                                                                                óf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASY EEAEAAAKEALKNDDVNKSYT I RQGA
                                                                                                                                                                                                                                                                                                                            immunoglobulins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-APR-1993
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                           Qy
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                   δÃ
             DEFINITION ACCESSION
                                                    RESULT 1
AX022441
                                                                                                                                                                                             ρ
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                     Q
                                                                                                                                      QΥ
                                                                                                             B
                                        LOCUS
VERSION
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 214; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_unit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                              1466
                                                                                                                                                                                                                          1346 GAACATTTGCAGAAGCAACAGCAGAAGCATACAGATACGCTGACTTATTAGCAAAAGAAA 1405
                                                                                                                                                                                                                                                                                   1286 TTACTATTAAAGCAAACTTAATCTATGCAGATGGAAAAACTCAAACAGCAGAGTTCAAAG 1345
                                                                                                                                                                                                                                                                                                                                          1232 TAAATATTAAATTTGCTGGAAAAGAAA-----AAACACCAGAAGAACCAAAAGAAGAAG 1285
                                                                                                                                                                    1406
                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                  62 ttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaattcaaag 121
                                                                                                                                                                                                                                                                                                                                                         ATGGTAAATATACAGCAGACTTAGAAGATGGTGGATACACTATTAATATTAGATTTGCAG
                                                                                                                                                                                   atggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaatttgctg 241
                                                                                                                                                                                                                                         GTAAGAAA 1473
                                                                                                                                        gaaaataa 249
           AX022441 548 bp sequence 1 from Patent EP0935612.
AX022441.1 GI:10046055
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /evidence=experimental
1035 .1250
/gene="protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /function="one of the fiv
/rpt_family="B family in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1251. .1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="B family in protein L gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'gene="protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       citation=[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /evidence=experimental
412 c 490 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /function="region of unknown function"
/rpt_family="C family in protein L gen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /function="region of unknown function"
/rpt_family="C family in protein L gen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        citation=[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'gene="protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      citation=[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        citation=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="protein L"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rpt_type=direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     711. .1866
'gene="protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          function="one of the rpt_family="B family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            citation=[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                72.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2025
                                                                                                                                                                                                                                                                                                                                                                                                   Score 181.2; DB 1;
Pred. No. 3.9e-24;
0; Mismatches 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          five kappa-binding in protein L gene"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            five kappa-binding in protein L gene"
                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           domains"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              domains"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            domains"
                                                 PAT 07-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                              1465
```

KEYWORDS

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                      RESULT 1
AX030798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                      JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               112
                                                                                                                                                                                                                                                                                                                                                                                                                                                       232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25 gaaacaccagaaacaccagaagaaccaaaagaagaagttacaatcaaagttaacttaatc 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAAAGCGACCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGCTTATGCGTATGCAGATACTTTGAAGAAAGACAATGGTGAATATACTGTAGATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagcagactta 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagca 144
                                                                                                                                                                                                                                                                                                                                        Sequence 1 from Patent US6043069
AX030798
                                                                                                                                                                                 Koentgen, F., Suess, G.M., Tarlinton, D.M. and Tre Catalytic antibodies and a method of producing Patent: US 6043069-A 1 28-MAR-2000; AMRAD OPERATIONS PTY LTD (AU)
                                                                                                                                                                                                                                                                                unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Koentgen,F., Suess,G.M., Tarlinton,D.M.
Precursors of catalytic antibodies
Patent: EP 0935612-A 1 18 AUG-1999;
AMRAD OPERATIONS PTY LTD (AU)
                                                                                                                                                                                                                                                                                                unidentified
                                                                                                                                                                                                                                                                                                                             AX030798.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 548)
                                                                                                                                                                                                                                                 (bases 1 to 548)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184
                                                                                                                                                                                                                                                                   lassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation-"MKKTAIAIAVALAGFATVAQAAPKDNTEEVTIKANLIFANGSTQ
TAEFKGTFEKATSEAYAYADTLKKDNGEYTVDVADKGYTLNIKFAGKEATNRNTDGST
DYGILQINSRWGGLTLKEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNGEYTVDVADKGYTLNIKFAG"
118 c 129 g 1
 DYGILQINSRWGGLTLKEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKK
           /translation="mkktaiaiavalagfatvaqaapkdnteevtikanlifangstq
Taefkgtfekatseayayadtlkkdngeytvdvadkgytlnikfagkeatnrntdgst
                                         /protein_id="CAC09615.1"
/db_xref="GI:10278298"
                                                                                                                         /db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /protein_id="CAC07873.1"
/db_xref="GI:10046056"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="unnamed protein product"
                                                                                         /note="unnamed protein product"
                                                                                                                                        organism="unidentified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ocation/Qualifiers
                                                                           codon_start=1
                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'organism="unidentified'
                                                                                                           .>548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44.1%;
68.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 109.8; DB 6
Pred. No. 5.7e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               117
                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 6;
                                                                                                                                                                                                                                   .M. and Treutlein, H.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Treutlein, H.R
                                                                                                                                                                                                                   same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548;
                                                                                                                                                                                                                                                                                                                                                                          PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                          20-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ъ
밁
                        Qy
                                                         В
                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT :
                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                  Matches
                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205
112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Sir
hes 153;
                            85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25
                                                         52
gaagatggtggaaaaccatatgaacattaaatttgctggaaaataa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gaagcttacagatatgcagacttattagcaaaagtaaatggcgaatatacagcagactta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGCAAATGGTAGCACACAAACTGCAGAATTCAAAGGTACCTTCGAAAAAAGCGACCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTAGCGCAGGCCGCTCCGAAAGATAACACGGAAGAAGTCACGATCAAAGCGAACCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gaaacaccagaaacaccagaagaaccaaaagaagaagttaacaatcaaagttaacttaatc
                                                       GTAGCGCAGGCCGCTCCGAAAGATAACACGGAAGAAGTCACGATCAAAGCGAACCTGATC 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGCTTATGCGTATGCAGATACTTTGAAGAAAGACAATGGTGAATATACTGTAGATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tttgcagatggaaagatacaaacagcagaattcaaaggaacatttgaagaagcaacagca
                                                                      gaaacaccagaaacaccagaagaagaagaagttacaatcaaagttaacttaatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                        KOENTGEN FRANK (AU); AMRAD OPEL GABRIELE MARIA (AU); TARLINTON HERBERT RUDOLF (AU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Koentgen, F., Suess, G.M., Tarlinton, D.M. and Tro
Catalytic antibodies and a method of producing
Patent: WO 9915563-A 1 01-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Finegoldia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1
AX034619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX034619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Finegoldia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Finegoldia magna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AX034619.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 548)
                                                                                                                                                                                                       184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184 a
                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                       മ
                                                                                                                                                                                                                   /db_xref="GI:10303210"
/translation="MKKTAIAIAKDAGFATVAQAAPKDNTEEVTIKANLIFANGSTQ
/translation="MKKTAIAIAKDNGEYTVDVADKGYTLNIKFAGKEATNRNTDGST
TAEFKGTFEKATSEAYAYADTLKKDNGEYTVDVADKGYTLNIKFAGKEATNRNTDGST
DYGILQINSRWGGLTLKEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKK
DNGEYTYDVADKGYTLNIKFAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNGEYTVDVADKGYTLNIKFAG"
                                                                                                                                                                                                                                                                                           /transl_table=11
/protein_id="CAC10136.1"
                                                                                                                                                                                                                                                                                                                                                               /organism="Finegoldia
/db_xref="taxon:1260"
                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                         'codon_start=]
                                                                                                                                                                                                                                                                                                                                       'note="unnamed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        magna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:10303209
                                                                                                                                                                                                       118 c
                                                                                                                                44.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           548 bp
Patent W09915563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 109.8; DB o;
Pred. No. 5.7e-11;
""" matches 72;
                                                                                                                 Score 109.8; DB 6
Pred. No. 5.7e-11;
0; Mismatches 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacillus/Clostridium group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129
                                                                                                                                                                                                                                                                                                                                  protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATIONS PTY LTD (AU)
                                                                                                                                                                                                                                                                                                                                                                            magna"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          117
                                                                                                                                                                                                                                                                                                                                                                                                                                       DAVID MATHEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                             DB 6;
                                                                                                                 Indels
                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Treutlein, H.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Clostridiaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                    TREUTLEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT
                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-SEP-2000
                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           111
                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                 0;
```

```
Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                        BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
                                                                 DEFINITION ACCESSION
                                                                                                       AX030809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                         KEYWORDS
SOURCE
                                                                                                                                                             g
                                                                                                                                                                                     Š
                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                      Qy
                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Snoo
                                                                                          Locus
                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local;
                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity Matches 140; Conserv
               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 GCAGATAAAGGTTACACCCTGAACATCAAATTCGCGGGTAAAGAA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 GAAGCTTATGCGTATGCAGATACTTTGAAGAAAGACAATGGTGAATATACTGTAGATGTT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145
                                                                                                                                                                                                                 154
                                                                                                                                                                                                                                         17,5
                                                                                                                                                                                                                                                                                              115
                                                                                                                                                             214
                                                                                                                                                                                                                                                                     94
                                                                                                                                                                                                                                                                                                                      34
                                                                                                                                                                                                                                                                                                                                                55
                                                                                                                      15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gaagatggtggaaaccatatgaacattaaatttgctggaaaataa 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gaagottacagatatgcagacttattagcaaaagtaaatggcgaatatacagcagactta 204
                                                                                                                                                                                                                                  aaagtaaatggcgaatatacagcaģacttagaagatggtggaaaccatatgaacattaaa
                                                                                                                                                                                                                                                                                       ttcaaaggaacatttgaagaagcaacagcagaagcttacagatatgcagacttattagca 174
                                                                                                                                                                                                                                                                                                                   GAAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAA 93
                                                                                                                                                                                                                AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAA
                                                                                                                                                                                                                                                                                                                                    TTCGCGGGTAAAGAA 228
                                                                                                                                                                                    tttgctggaaaataa 249
                                                                                                                                                                                                                                                                     TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 12 from Patent Ax022452
                                                              539 bp
Sequence 12 from Patent US6043069
AX030809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Precursors of catalytic antibodies patent: EP 0935612-A 12 18-AUG-1999; AMRAD OPERATIONS PTY LTD (AU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX022452.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX022452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unclassified:
1 (bases 1 to 539)
             unidentified unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Koentgen, F.,
unclassified
                                                     AX030809.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 a
                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AYADTIKKDNGEYTVDVADKGYTLNIKFAGKEATNRNTDGSTDYGILQINSRWGGLTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NIKFAGKESAWRHPQFGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKKDNGEYTVDVADKGYTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation="MDYKDDDDKGAEEVTIKANLIFANGSTQTAEFKGTFEKATSEAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         db_xref="GI:10046067"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="unidentified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein_id="CAC07878.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:10046066
                                                      GI:10278307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Suess, G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                       43.0%;
                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                       Score 107;
Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      130 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        539 bp
EP0935612.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tarlinton, D.M. and Treutlein, H.R.
                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         112 t
                                                                                                                                                                                                                                                                                                                                                                                       DB 6;
.8e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                                                                                                                                                                                                                                                       55;
                                                                                                                                                                                                                                                                                                                                                                                                    Length 539;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT 07-SEP-2000
                                                                                                PAT 20-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                        153
                                                                                                                                                                                                                                                234
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                     Db
                                                                                                                                                                      QУ
                                                                                                                                                                                                       dg,
                                                                                                                                                                                                                                       Q.
밁
                               QУ
                                                                    Db.
                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                               115 ttcaäaggaacatttgaagaagcaacagcagaagcttacagaatatgcagacttattagca 174
                                                                  154 AAAGACAATGGTGAATATACTGTAGATGTTGCAGATAAAGGTTACACCCTGAACATCAAA 213
                                                                                                  175. aaagtaaatggcgaatatacagcagacttagaagatggtggaaaccatatgaacattaaa 234
214 TTCGCGGGTAAAGAA
                               235 tttgctggaaaataa 249
                                                                                                                                         94
                                                                                                                                                                                                                                              55
                                                                                                                                                                                                             34
                                                                                                                                     TTCAAAGGTACCTTCGAAAAAGCGACCTCGGAAGCTTATGCGTATGCAGATACTTTGAAG 153
                                                                                                                                                                                                           GÄAGAAGTCACGATCAAAGCGAACCTGATCTTTGCAAATGGTAGCACACAAACTGCAGAA
                                                                                                                                                                                                                              gaagaagttacaatcaaagttaacttaatctttgcagatggaaagatacaaacagcagaa 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Koentgen, F., Suess, G.M., Tarlinton, D.M. and Tre Catalytic antibodies and a method of producing Patent: US 6043069-A 12 28-MAR-2000; AMRAD OPERATIONS PTY LTD (AU)
                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 539)
                                                                                                                                                                                                                                                                                                                                                                                         181 a
                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                      AEEVILAANAA NIKFAGKESAWRHPQFGG"
                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MDYKDDDDKGAEEVTIKANLIFANGSTQTAEFKGTFEKATSEAY
AYADTLKKDNGEYTVDVADKGYTLNIKFAGKEATNRNTDGSTDYGILQINSRWGGLTS
AEEVTIKANLIFANGSTQTAEFKGTFEKATSEAYAYADTLKKDNGEYTVDVADKGYTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /protein_id="CAC09620.1"
/db_xref="GI:10278308"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="unidentified"
/db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ocation/Qualifiers
                                                                                                                                                                                                                                                                                                  43.0%;
                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                   Score 107; DB 6;
Pred. No. 1.8e-10;
0; Mismatches 55;
                                                                                                                                                                                                                                                                                                                                                                                           112 t
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Treutlein, H.R.
                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                    93
                                                                                                                                                                                                                                                                                       0;
```

Search completed: June 19, 2002, 18:42:40 Job time: 7637 sec